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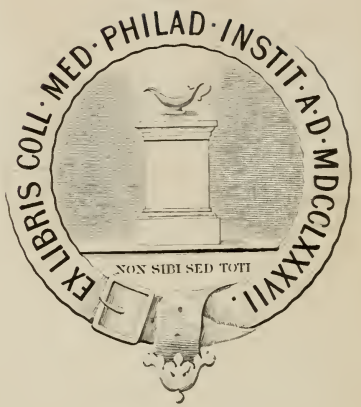

Presented by
C. W. Dulles, M. D.

TRANSACTIONS

OF THE

Homœopathic Medical Society

OF THE

STATE OF PENNSYLVANIA.

SEVENTEENTH ANNUAL SESSION.

1881.

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PREFACE.

From causes beyond their control, the publication and distribution of the Transactions of the Seventeenth Session of the Society have not been accomplished in as short a time as the Committee of Publication had anticipated when the work was commenced.

The utmost diligence, however, has been observed in pushing the work to a final conclusion, and now that it has been completed and placed in the hands of the members, we trust that it will be found satisfactory to all who were present at the meeting, and who take sufficient interest in it to renew their recollections of the proceedings by perusing its pages.

Of those who were not at the meeting, we would ask a careful perusal of the volume, hoping thereby to arouse a new interest in the Society, and give it a wider field of usefulness.

Z. T. Miller, M.D.,
R. E. Caruthers, M.D.,
J. F. Cooper, M.D.,
T. M. Strong, M.D.,
Committee of Publication.

February, 1882.

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PROCEEDINGS

OF THE

SEVENTEENTH ANNUAL SESSION

OF THE

Homœopathic Medical Society

OF THE

STATE OF PENNSYLVANIA.

WEST CHESTER, PA., September 20th, 21st and 22d, 1881.

The Society was called to order at 9.30 A.M., Dr. J. H. McClelland, President, in the chair. The order of business as arranged by the Secretaries was adopted, after which the President delivered the following address:

FELLOW MEMBERS OF THE HOMŒOPATHIC MEDICAL SOCIETY OF PENNSYLVANIA:

It is a genuine pleasure to meet so many of my colleagues upon this occasion, and I make it my first duty to return hearty acknowledgments for the honor conferred, when, at the last annual session, you elected me your presiding officer. With less pleasure it becomes my next duty to explain that circumstances, with which many of you are familiar, have prevented the preparation of such an address as the time and place reasonably demand. In an informal way, however, permit me to bring to your attention some matters of professional and perhaps general interest.

The first topic suggested by the occurrences of the year, is by no means a new one, yet possibly interesting because the pro-

fession and the public have been placed in juxtaposition with it in more than one notable instance during this period. It is the old question growing out of the relation of our own to the old school of practice, involving the status of those who practice Homœopathy. Nor should I think it worth while to detain you now with a rehearsal of it, save for the extreme freedom with which our principles and practice are set forth and explained for us, and by those whom I fear care little to understand what they declare *ex cathedra*. It is scarcely an assumption, then, if we desire to speak for ourselves on such a matter, and you will bear with me if, in order to be understood by other auditors than ourselves, perhaps I tell a somewhat familiar story.

The question then involves to some extent the merits of the system known as Homœopathy, and has a direct bearing as well upon the status of those who conceive it to be a correct method in therapeutics, and practice accordingly.

With regard to the first point, it is claimed that the "dogma" put forth by Hahnemann as the combined result of observation and experiment, simply formulates, does not create, a law of drug force—represents, in a word, the relation which drug action bears to disease action in the living organism. His investigations revealed the fact that drugs will always induce disturbances of the organism, "each after its kind," which exhibit a marvelous resemblance to the disturbances which obtain in disease. It became plain that this relation, if constant, furnished the key to a generalization in medicine, a therapeutic law, a law of cure.

The labor of verifying this discovery was begun by Hahnemann, and has been continued with unremitting vigor ever since. It involved the reconstruction of the whole science of materia medica upon the basis of physiological provings upon the healthy human organism; now admitted to be the only scientific method of obtaining a correct knowledge of drugs. For this the world is indebted to Hahnemann.

Just how far this law can be made available "for the healing of the nations" in the practice of medicine, including surgery and kindred branches, may be difficult to determine with exactness; it is clearly not the only method by which drugs may be employed in the treatment of disease. It is, however, without question, the

only generalization at present known to science which offers a scientific basis for the practice of therapeutics. Without doubt the discovery of this therapeutic law marks an epoch in the history of medicine, and is the most important advance that has ever been made toward making the practice of medicine regular. Can the old practice point to a single generalization other than this? Might we not with propriety inquire, what is the scientific basis upon which so called "regular medicine" is builded?

There has always been considerable distress among our old school brethren upon the subject of the small doses of Homœopathy, and they have expounded that also with much earnestness and fluency. But in the employment of remedies according to the "homœopathic dogma," which is becoming very frequent of late, as, for example, ipecac. for nausea, etc., etc., they too have found that greatly diminished doses are not only necessary but more rapidly curative. I might illustrate this necessity by the following: if opium is administered to produce stupor, of course sufficient must be given to obtain this primary effect of the drug; but if it is called for in a given case of congestion of the brain, as it might be homœopathically, any one can plainly see what a fatal blunder it would be to give the dose that would be perfectly proper in the former case. This was Hahnemann's experience, and may be regarded as a correct therapeutic rule or generalization; although it remains, as it always has been, a matter for the individual judgment of each responsible practitioner.

A final difficulty is the pharmacology of Homœopathy. Upon this a vast deal of mathematical argument has been wasted. The science of numbers has been severely taxed to prove that the world would not hold the much diluted drugs, and yet one carries a sufficient supply in his vest pocket. It appears that Hahnemann, in seeking the diminished dose that seemed necessary as above intimated, came to find that sub-division or comminution of crude material increased its curative (not poisonous—hence homœopathic medicines are seldom hurtful in ordinary doses) ability in many instances. Of this we have examples in old school pharmacy; as for instance, where the almost inert quicksilver becomes the active mercurial when triturated with chalk or conserve of roses. So in new school pharmacology even such inert substances as calcarea and

silicea by trituration become capable of modifying the most intimate processes of nutrition. But Hahnemann found this to be more or less true of all drugs for purposes of administration in accordance with the homœopathic law of cure; and this suggested another generalization which has proven of great value. How far the process of trituration and dilution can be advantageously carried is a matter for experience and individual judgment. Neither the dose nor its manner of preparation affects in any degree the principle upon which homœopathic practice rests, viz.: that "likes by likes are cured."

This is offered as a running exposition of the essential principles of Homœopathy as I understand them. Although without a parallel as a scientific method, abundantly verified at the bedside (the *experimentum crucis*), it is not claimed that this embodies the whole science of therapeutics. There is much in the palliation and treatment of disease and injury that cannot, in the nature of things, come within the scope of Homœopathy, simply because specific medicine does not apply. For example, the employment of anæsthetics to temporarily obtund the senses; the use of narcotics to palliate some incurable malady or to secure their specific effect for a special purpose; finally, the whole range of mechanical therapeutics, hygiene, sanitation, and the thousand and one elements that go to make up the practice of medicine.

I have indulged in the above explanations in order that the second and more personal phase of this question, namely, the status of homœopathic practitioners, might be better understood as viewed by themselves.

We are at once confronted by the significant fact that the homœopathic practitioner, by education and degree, is a Doctor of Medicine in the common acceptation of the term, which infers the right of judgment as to the means employed for the relief and cure of the sick and injured committed to his care. If, in his judgment, a case requires an opiate, who shall question his right to administer it? If he considers it better practice to administer a drug in accordance with the law, Similia Similibus Curantur, upon what ground shall objection be raised? Singular as it will appear, just here lies the offense. He is charged with practising ac-

cording to an exclusive dogma! In prescribing for the sick, he has taken cognizance of a clearly defined principle of drug action, which within the sphere of its application is no more exclusive than the law of gravitation, and is just as free to all. But, it is said, Hahnemann created a sect, and they are his followers! Let me explain, briefly:

When Hahnemann offered for the irregular methods of the "regular" school a systematic basis for therapeutics—formulating his famous maxim, "Similia Similibus Curantur"—it was so different from the existing order of things, and partook so much of method, that a distinctive name became a necessity, and thus the word Homœopathy (like affection) came into existence, and has ever since been a rock of offense. Had this principle of drug action been recognized by the profession at large, as good judgment might have suggested, there would have been no such word as Homœopathy; there would have been no "sectarianism," and the prevailing practice of medicine would have been a science in fact as in name. Instead, however, the publication of his discoveries and his criticisms upon the prevailing fallacies of the schools, aroused the most virulent opposition, subjecting him and his theories to derision and contempt. This, in turn, made the reformer more unsparing in his exposure of these fallacies, and perhaps drove him also into certain extremes of both theory and practice. He proceeded to the best of his ability and knowledge to construct a *rationale* of this law of drug action, and in lieu of the absurd pathology which prevailed, he advanced his own theories of disease. While much of this work stands unmoved to-day, some of his speculations have not stood the test of time and recent discovery; furnishing text for much flippant criticism by those who forget their advantages of three-quarters of a century notable for its advances in pathology and kindred sciences—forgetting, too, that Hahnemann himself overturned much of the erroneous pathology then held by the scientific (?) men of his day. Clearly, however, his theories or hypotheses cannot invalidate the facts which he established.

But I may be in error in saying that all have overlooked his services in the direction mentioned, for at a recent meeting of the British Medical Association, Dr. John Syer Bristowe, who deliv-

ered the address in medicine, although sufficiently severe in some respects, made the following manly admissions: Referring to Hahnemann, he said, "that he had learning and ability and the power of reasoning, is abundantly clear. He saw through the prevalent therapeutical absurdities and impostures of the day; he laughed to scorn the complicated and loathsome nostrums which, even at that time, disgraced the pharmacopœias; and he exposed with no little skill and success the emptiness and worthlessness of most of the therapeutical systems which then and theretofore prevailed." When it is remembered that it is his own "regular" school that is referred to, one admires the honest candor of this deliverance. The above surely indicates that this leader in medical reform (Hahnemann) will some day be better understood, and be accorded his place in the long line of worthies in medicine.

A few weeks ago I stood by the birthplace and by the grave of Galileo, and the story of his discoveries and subsequent persecutions for truth's sake, suggested the parallelism in Hahnemann's life and experience. He was driven from Leipsic because he dared to differ from those in authority, and because his discoveries in science overturned the current theories of the day. Recently, moreover, in London, at the largest gathering of medical men that has ever been held on earth, there was unveiled with great acclaim a statue of Harvey—tardy justice to a great man who was subjected to heartless persecution by his professional brethren, because of his discovery of the circulation of the blood. Contemplating the preparations for this event, I could not but feel that at some day in the not distant future there will be another such gathering, and the statue unveiled will be that of SAMUEL HAHNEMANN.

Having already detained you longer than I intended with this explanatory review, let us come finally to consider the status of those who practice Homœopathy. With regard to the professional standing of these practitioners we would simply point to their Degree as sufficiently significant; and the intelligence and character of those who place themselves and their families under their care should indicate that as physicians they are not considered unworthy of confidence.

While deprecating the spirit of antagonism and lack of pro-

fessional courtesy which has characterized the old practice in its relation to us, we rest upon this point of good taste, and I think the sentiment is shared by every member of this Society, namely, that we have not the least desire for association, professionally or otherwise, with any person or school where it would not be mutually and entirely agreeable.

We are asked to renounce the name as the price of recognition. In reply let us answer, we are not sticklers for any name, but having subjected the essential principles of Homœopathy to the practical test of experience, we feel an honest conviction that they are correct therapeutic generalizations, although by no means the whole of therapeutics; we hold to them simply because of their practical utility in the healing of the sick, and, with all due respect, we cannot consent to sell our birthright for what is comparatively a mess of pottage. The name amounts to nothing except as descriptive of certain principles, but until the ordinary practice come to see the validity of these it may still serve a good purpose.

My own view, and it is shared by many, is, that the title "Doctor of Medicine" is sufficient, and includes Homœopathy as a part of medical science, carrying with it the right to select a medicine according to one's best judgment, without being subjected to even the mild stigma of "irregular."

Without going into the question of consultations at this time, except as may be inferred from the above, it may be interesting to the generality of the old school profession to know how their own great men are viewing the subject at present; with the preliminary remark that at the recent International Convention, well known homœopathic practitioners were freely admitted as members, and took part in the discussions.

Here is a paragraph from the report of a speech by Mr. Jonathan Hutchinson, Senior Surgeon of the London Hospital: "Referring to the question of consultations with homœopathists, he held that there were some in that body who were honest workers in the public good, and concerning whom it was scarcely fair to adopt a hasty dictum that they were either knaves or fools."

The President of the British Medical Association, Mr. Barrow, thus refers to the homœopathic practitioner: "He practices a

system of medicine (although I have no belief in it)—nevertheless it is a *system*, and, if carried out in its purity, as laid down by the founder of the system, and as long as the homœopath adheres strictly thereto, I fail to see how he can be called a quack or why he should be tabooed by the profession, as it were cut off from a position among medical men, forbidden to gather together with them, and prevented from discussing publicly his system, and hearing the contrary from those practising legitimate medicine. The benefit would be mutual, and these discussions would be of benefit to the public, and an additional proof to them that their weal was uppermost in our minds."

Dr. Bristowe, already noted, closes an address before this same Association, as follows: "That all homœopathists are honest men is more than I would venture to assert, but that in large proportion they are honest is entirely beyond dispute. . . . . It is absolutely certain that men of learning and ability are contained within their ranks. If you care to dive into homœopathic literature you will find in it plenty of literary ability, and I have perused many papers by homœopaths on philosophical and other subjects unconnected with homœopathy, which prove their authors to be men of thought and culture, and from which I have derived pleasure and profit. . . . . When homœopaths are honest and well informed, and legally qualified practitioners of medicine, they should be dealt with as if they were honest, and well informed, and qualified. I shall not discuss the question whether we can with propriety or with benefit to our patients meet homœopaths in consultation. I could, however, I think, adduce strong reasons in favor of the morality of acting thus, and for the belief that good to the patient would generally ensue under such circumstances. I shall not consider at length whether the dignity of the profession would be compromised by habitual dealings with homœopathists. But I would observe that it is more conducive to the maintenance of true dignity to treat with respect and consideration, and as if they were honest, those whose opinions differ from ours, than to make broad our phylacteries and enlarge the borders of our garments, and wrap ourselves up, in regard to them, in Pharisaic pride. Breadth of view and liberality of conduct are the fitting characteristics of men of science."

This courteous mention from men characterized by the *British Medical Journal* as "two of the ablest, most deeply read, most philosophical, most acute, and most cautious representatives of medicine and surgery," is certainly refreshing to ears accustomed to other sounds from this direction. But even from such a source as the *Medical and Surgical Reporter* of Philadelphia, we find the following phenomenal editorial paragraph:

"For centuries, many regular physicians have practiced according to the rule of homœopathy, believing it to be the correct one, *as a rule*, and nobody has found fault with them."

As a result of such utterances, however, the London *Lancet* sounds the alarm and attributes these honest outbreaks to "a very deep and well concerted scheme laid by the Council of the British Medical Association, or those who govern the Council, to reverse the ethical principle which has regulated the attitude of the profession in all civilized countries toward homœopathy." Think of men actually scheming for the privilege of doing justice to the despised and rejected homœopath, as their better impulses evidently urge them!

It remains for me to speak briefly of "the progress of Homœopathy during the year," as required by your regulations. It would be quite sufficient upon this point to refer you to the admirable address delivered at the recent meeting of the American Institute of Homœopathy by the President, Prof. J. W. Dowling, M.D., but the meeting itself also gave abundant evidence of progress. I am reminded, too, of our recent International Convention in London, under the able leadership of Dr. Richard Hughes, of Brighton, England, and his indefatigable Vice President, Dr. Pope, of London. The meeting was a genuine success in every respect, and I am happy to announce that its valuable papers and discussions will soon be available in the Transactions which are shortly to appear. Need I say that he will be fortunate indeed who procures a copy from Dr. Hughes. A most valuable addition during the year to our literature is a second edition of that thoroughly excellent and most complete work on Hay Fever, by our esteemed colleague, Dr. Charles Harrison Blackley, of Manchester, England. This work records the results of much original research, and throws considerable new light upon this distressing

malady. Other valuable publications have appeared, of which I have not a list at hand.

While our hospitals, and colleges and journals are all showing evidences of progress, it is with no little satisfaction and pleasure that we observe the adoption of our principles in the practice of the old school. Here genuine progress is being made, even though acknowledgment is not always forthcoming. I cannot do better than advise the re-reading of the scholarly presidential address delivered by our esteemed fellow member, Dr. J. C. Burgher, before the American Institute at Put-in-Bay. In it this phase of the subject is most ably handled. I take the liberty of using one of his quotations in support of what I have said: "In the *Medical and Surgical Reporter*, of Philadelphia, March 30, 1878, page 246, Charles H. Hall, M.D., closes an article upon corrosive sublimate in dysentery, in these words: 'These cases are taken from my case-book to illustrate the efficacy of *small and frequently repeated doses in this disease.* There cannot be any doubt of the success, in the great majority of cases, of this method of treatment. I could furnish records of many more successful cases treated in this manner. My success, so far, has been gratifying. Ringer, who advises it in his book,* deserves no credit for it except for popularizing it. Any one curious on the subject of his small doses, not only in this disease, but in almost every other one of his recommendations, has only to refer to homœopathic works and find that he has plagiarized. Take up any one of their works, even the domestic manuals of twenty-five years ago, and you will find corrosive sublimate put at the head of the list of remedies for dysentery. Although a regular of the *strictest sect*, I believe we should give credit even to irregulars when they deserve it.'" Parenthetically, we cannot but remark how sadly the old school are afflicted with "regular"-ism.

The International Convention (old school), which followed our own in London, was notable for the poverty of papers and discussions upon the subject of therapeutics; indeed, in this particular it may be said to have been almost a blank. Pathology and kindred sciences were splendidly represented, but on the subject of thera-

* Hand-book of Therapeutics, by Sidney Ringer, M.D., Professor of Therapeutics in University College, London, etc., etc.

peutics these learned men from all parts of the globe were silent. One would imagine that the medical treatment of disease was no part of a physician's duty. This was in marked contrast with our own. General medical science was for the time waived aside, and attention strictly devoted to the subject of internal therapeutics. I refer to this to illustrate marked characteristics of the two schools. The unsatisfactory results obtained from drugs as administered by the ordinary practice has had the effect of creating widespread scepticism in their ranks as to the value of medication at all, giving rise to the common remark that such a doctor "gives little or no medicine," the profession devoting themselves to the study of pathology, surgery, hygiene and other practical branches, and pursuing what is called the "expectant method." On the other hand, the practitioners of Homœopathy, with the clear light of a guiding principle of drug action to direct them, have become more and more convinced of the efficacy of drugs in the cure of disease, and since the days of Hahnemann have devoted themselves to the reconstruction of the materia medica upon a physiological basis, in order to make every known medicine available for the cure of disease. This immense work so occupied the attention of earlier practitioners that other branches of medical science were neglected, and this, even yet, accounts for the lack of interest, shown by many practitioners, in surgery and kindred branches. I am ready to admit, for one, that this may be almost as great an error upon our part, as the throwing overboard of specific medication by the old school.

Before leaving this subject, I would refer to the sterling address delivered at the Convention above mentioned by the distinguished scientist, Prof. Pasteur, which was received with general favor. This address was upon 'The Germ Theory,' reminding us of the able treatise by our own scholarly Drysdale upon 'The Germ Theories of Infectious Diseases,' and reported the results of recent experiments in vaccinating animals with marvelously diluted virus in order to render them proof against virulent diseases of a *similar kind.* This, of course, is a further application of the principle of cow-pox vaccination to prevent small-pox, discovered by Jenner. Pasteur was enthusiastic over the success of his experiments, but it should be no occasion for surprise, as the principle is so mani-

festly correct, the same as with vaccination, like curing or *preventing* like, a pure Homœopathy in every respect, even to the small doses required. There is no reason for doubting that this same principle will be found applicable to scarlet fever and other diseases dependent upon a specific virus, thus protecting childhood from many a dreadful scourge.

But the current literature and practice of the old school everywhere give evidence that our remedies are daily coming more into use, and we note the fact with increasing pleasure; for even by piecemeal, as it were, these principles of therapeutics will in time come to be acknowledged. When this is frankly done, then "Ephraim shall no more envy Judah and Judah shall not vex Ephraim," and we will be likely to realize "how good and how pleasant a thing it is for brethren to dwell together in unity."

The above facts and comments, hurriedly thrown together, will be sufficient to illustrate the points I have named, and I now ask your attention to an entirely different subject, viz.: *The Sanitary Inspection of Public Schools.*

The fact is notorious that many (most) of our public school buildings, and private ones too, are abominably ventilated and are defective in other hygienic particulars; that much of the ill health of teachers, and scholars as well, is directly traceable to living for several hours a day under circumstances of considerable nervous strain, in badly ventilated rooms, breathing impure air. This is a matter which should be under the supervision of the State authorities. Sanitary engineers, under authority of a State Board of Health, should inspect every school-house and enforce correct sanitary conditions. No school-house should be built without having a permit from the Sanitary Engineer, who shall have passed upon the plans for the same. This regulation should also be extended to all public buildings where the people congregate or are permanently gathered, as halls, churches, hospitals and asylums.

Proper regulations looking to this end would greatly conserve the public health, and it is a matter that could very properly occupy the attention of a Board of Health. If some such practical function could be assigned to it there would be less opposition to its creation by the Legislature and the people. While in London

I had the good fortune to meet Dr. Roth, of that city, who has lectured and written largely upon the subject of Government Inspection of schools and school-children, and I became convinced that in our country the State could well afford to entrust so important a matter to a Board of Health. It is hardly probable that we could go to the length advocated by Dr. Roth, with regard to the inspection of school-children, but we could at least give them healthful school-rooms. I would therefore recommend that this subject be referred to the Committee on Legislation of this Society, with instructions to prepare a bill for the creation of a State Board of Health, incorporating this important feature.

I would next ask your attention to the provision in our By-Laws requiring the President in his annual address to "report upon the progress of Homœopathy during the year." This plainly restricts the President to one branch of medical science, important though it be. I therefore ask that he be left unrestricted in this respect, and that this matter be referred to the Committee on Revision of the Constitution and By-Laws. I will only add that our National Body and International Congress are similarly restrictive, and I cannot but believe it to be a serious mistake; a narrow policy and one likely to give color to the oft repeated charge that we are only homœopathists, not physicians, in the more comprehensive sense. When it is remembered that we depend upon our own organizations for the benefits in general medical science that usually flow from such connections, it will be seen how unfair it is to those who desire to be informed as to progress in other branches.

In closing this already too lengthy address, I feel it a duty to refer to the startling and inexpressibly sad event that was announced to us last night by the solemn tolling of bells. President Garfield, after a struggle in which he exhibited almost unparalleled courage, has at last succumbed. It is not for me to speak in eulogy over our beloved dead, but I would suggest the appointment of a committee to prepare a suitable memorial, which shall be presented early in the session.

Thanking you for your attention, I would ask you to proceed with the regular order of business.

On motion, a vote of thanks was tendered to the President, and a committee of three appointed to whom the address was referred. This committee consisted of Drs. J. E. Jones, J. B. Wood and H. Pitcairn.

Owing to the absence of Dr. R. E. Caruthers, Corresponding Secretary, Dr. W. J. Martin was selected to perform the duties of Corresponding Secretary during this session.

The following physicians were present:

Members.—A. H. Ashton, B. F. Betts, W. H. Bigler, C. F. Bingaman, J. F. Cooper, J. J. Detwiller, J. W. Detwiller, P. Dudley, E. A. Farrington, W. C. Goodno, W. M. Griffith, J. C. Guernsey, W. J. Guernsey, J. E. James, Maria N. Johnson, J. E. Jones, A. Korndœrfer, J. K. Lee of Philadelphia, A. Lippe, J. Malin, H. N. Martin, W. J. Martin, R. P. Mercer, Z. T. Miller, C. Mohr, T. Moore, J. C. Morgan, R. J. McClatchey, J. H. McClelland, W. A. D. Pierce, H. Pitcairn, T. Pratt, A. R. Thomas, C. M. Thomas, C. Van Artsdalen, M. M. Walker, J. H. Way, L. H. Willard, M. S. Williamson, J. B. Wood.

Visitors.—J. V. Allen, T. S. Dunning, C. F. Goodno, F. O. Gross, E. B. Jackson, L. C. Jackson, J. Kemble, H. Augusta Kimball, W. Peacock, E. J. Remick, E. S. Sharpless, J. W. Thatcher, C. E. Toothaker, Chandler Weaver, Philadelphia; H. Homer, W. H. Tomlinson, Germantown; S. A. Mullin, R. C. Smedley, H. C. Wood, West Chester; C. W. Perkins, S. S. Starr, Chester; L. Hoopes, J. S. Leech, Downingtown; I. D. Johnson, A. S. Mattson, Kennett Square; J. W. Pratt, H. E. Williams, Coatesville; J. R. Swartz, Harrisburg; J. F. Nowell, Greencastle; Newton May, Holmesburg; E. C. Parsons, Meadville; J. E. Parker, Parkersville; I. Crowther, Upland; T. L. Adams, Berwyn; Annie Hawley, Pughtown.

The Board of Censors, during the sessions of the Society, reported favorably upon the following applications for membership, and the applicants were elected:

Bartlett, Clarence, M.D., Philadelphia,	Hahn. Med. Coll. of Phil'a., 1879.
Brooks, Chas. M., M.D., Philadelphia,	Hahn. Med. Coll. of Phil'a., 1877.
Bunting, H. M., M.D., Norristown,	Hahn. Med. Coll. of Phil'a., 1879.
Dunning, T. S., M.D., Philadelphia,	Hahn. Med. Coll. of Phil'a., 1870.
Griffith, Silas, M.D., Philadelphia,	Hom. Med. Coll. of Penn'a., 1866.
Hawley, Annie M., M.D., Pughtown,	Hahn. Med. Coll. of Chicago, 1873.
Johnson, Theo. M., M.D., Pittston,	Hahn. Med. Coll. of Phil'a., 1878.
Karsner, Daniel, M.D., Germantown,	Jefferson Med. Coll. of Pa., 1865.
Kimball, H. Augusta, M.D., Philadelphia,	Bennet College of Chicago, 1880.
Mansfield, J. R., M.D., Germantown,	Hahn. Med. Coll. of Phil'a., 1879.
May, Newton, M.D., Holmesburg,	University of Pennsylvania, 1831.
Mullin, S. A., M.D., West Chester,	Hahn. Med. Coll. of Phil'a., 1879.
Parsons, E. C., M. D., Meadville,	Hahn. Med. Coll. of Phil'a., 1877.
Perkins, C. W., M.D., Chester,	Hahn. Med. Coll. of Phil'a., 1870.
Pratt, J. W., M.D., Coatesville,	Hahn. Med. Coll. of Phil'a., 1873.
Sharpless, E. S., M.D., Philadelphia,	Hahn. Med. Coll. of Phil'a., 1880.
Stambach, H. L., M.D., Philadelphia,	Hahn. Med. Coll. of Phil'a., 1879.
Swartz, J. R., M.D., Harrisburg,	Hahn. Med. Coll. of Phil'a., 1879.
Thatcher, J. W., M.D., Philadelphia,	Hahn. Med. Coll. of Phil'a., 1871.
Tomlinson, W. H., M.D., Germantown,	Hahn. Med. Coll. of Phil'a., 1875.
Toothaker, C. E., M.D., Philadelphia,	Hom. Med. Coll. of Penn'a., 1851.
Umstead, D. B., M.D., Tacony,	Hahn. Med. Coll. of Phil'a., 1878.
Van Lennep, W. B., M.D., Philadelphia,	Hahn. Med. Coll. of Phil'a., 1880.
Weaver, Chandler, M.D., Philadelphia,	Hahn. Med. Coll. of Phil'a., 1879.
Williams, H. E., M.D., Coatesville,	Hom. Med. Coll. of Penn'a., 1866.

For Corresponding Membership:

Bender, Prosper, M.D., Montreal, Canada.

Dr. J. F. Cooper, Treasurer, presented his report, which was as follows:

REPORT OF THE TREASURER.

To the Homœopathic Medical Society of Pennsylvania:

Your Treasurer would offer the following as his report of the finances of the Society:

Since the last annual report there have been received—

Dues from members, - - - -	$545 05
Amount overpaid to Sherman & Co., -	81 30
Sale of Transactions, - - - -	19 00
From Committee on Subscription, - -	246 00
	$891 35

The following amounts have been paid out, as per vouchers—

Balance due Treasurer at last report, -	$ 2 46	
Sherman & Co., - - -	225 00	
" " printing "State History,"	5 75	
Corresponding Secretary, balance on bill of 1879–80, - - -	17 09	
W. W. Lewis & Co., printing and binding Transactions of 1880, -	511 73	
R. E. Caruthers, on acct. mailing Transactions of 1880, - - -	20 00	
W. R. Childs, Necrologist, -	11 25	
		793 28
Balance in Treasury, Sept. 19th, 1881, - -		$98 07

Respectfully submitted.

J. F. Cooper, M.D.,
Treasurer.

The report was then referred to Drs. J. B. Wood, C. H. Mohr and E. C. Parsons as Auditing Committee.

The committee presented the following report:

REPORT OF THE AUDITING COMMITTEE.

We hereby certify that we have examined the books and papers of the Treasurer, and find the amounts received and expended to agree with the figures of this report, the balance in the Treasurer's hands being $98.07.

J. B. Wood, M.D.,
C. Mohr, M.D.,
E. C. Parsons, M.D.,
Auditing Committee.

The report of the Corresponding Secretary was then presented.

REPORT OF THE CORRESPONDING SECRETARY.

To the Homœopathic Medical Society of Pennsylvania:

Your Corresponding Secretary would report that during the year just closing his duties have been about as usual. No cor-

respondence requiring the action of the Society has been received, except the resignations of four members of the Society, which will be presented at the proper time.

The different county societies were communicated with and invited to prepare papers. The Philadelphia and Allegheny County Societies have done so.

An invitation was again extended to the Corresponding Members to send contributions to this meeting, and, in response, papers have been received from Dr. Nichol, of Montreal, Canada, and Dr. Paz Alvarez, of Madrid, Spain, the latter of which has been translated from the Spanish by Dr. T. M. Strong, who kindly performed the same service for us last year.

Respectfully submitted.

R. E. Caruthers, M.D.,
Corresponding Secretary.

Dr. Z. T. Miller presented the Report of the Committee of Publication.

REPORT OF THE COMMITTEE OF PUBLICATION.

To the Homœopathic Medical Society of Pennsylvania:

Your Committee of Publication, appointed to issue the Transactions of the Session of 1880, offers the following report:

The reports and papers presented at the session of 1880, were arranged for publication and placed in the hands of the printer as soon as practicable after the meeting. The work was completed and issued in an octavo volume of 388 pages by the middle of November, two months after the adjournment of the meeting.

The committee thought to enhance the value of the previously published proceedings of the Society, and make them of more value by ease of reference, by including in the volume a general index of all the reports since the organization of the Society.

The cost of the publication of the volume was five hundred and eleven dollars and seventy-three cents ($511.73), with the additional expense of twenty-four dollars ($24.00) for distributing to the members.

Respectfully submitted.

Z. T. Miller, M.D.,
Chairman.

Dr. J. F. Cooper, Committee on Subscription, stated that he had received as subscriptions from members of the Society, two hundred and forty-six dollars ($246.00), which has been included in the report of the Treasurer.

Dr. Willard thought it necessary to raise money immediately to publish the Transactions, and moved that the committee be continued for the purpose of securing subscriptions. Carried.

Dr. H. Pitcairn made the following report in behalf of the Committee on Legislation :

REPORT OF THE COMMITTEE ON LEGISLATION.

To the Homœopathic Medical Society of Pennsylvania:

Your committee met February 10th, in office of Hugh Pitcairn, M.D., Drs. J. H. McClelland, Hugh Pitcairn and Wm. R. Childs, present; Dr. J. K. Lee unable to be present. The committee was organized by the election of Dr. J. H. McClelland, President, and Hugh Pitcairn, M.D., Secretary.

On motion, Dr. Childs was invited to participate and advise in the absence of Dr. Lee.

It was the sense of the committee that, in view of the desirability of obtaining recognition before the Legislature and appropriations for the hospitals in Philadelphia and Pittsburgh, it would not be advisable to oppose similar appropriations to other institutions, unless they offered opposition to our own. That the whole energy of your committee should be devoted to this purpose, taking cognizance of any other legislation that might come before either House for consideration, and opposing any bill not giving our school proper recognition.

Several subsequent informal meetings were held in the hall of the House of Representatives.

The organization of the Warren Hospital for the Insane under allopathic management was opposed as long as we considered it possible to accomplish anything, but the burning of the hospital at Danville gave such aid to the old school as to convince us that

it was useless to expend our strength in this direction at this time.

Senate Bill 140, "An act to regulate the practice of medicine, to establish a State Board of Health, and to make appropriation therefor," was opposed by us for obvious reasons.

House Bill No. 40, "An act to provide for the registration of all practitioners of medicine and surgery," was passed finally and became a law.

Appropriation bill asking for appropriation to Philadelphia Homœopathic Hospital passed the Committee on Appropriations with affirmative recommendation for $50,000; also first and second reading before House, and if proper energy and help had been given by the party or parties in charge, no doubt could have been passed on final reading for $25,000.

Appropriation bill for Hospital in Pittsburgh for $100,000, had favorable recommendation for $50,000 from Appropriation Committee, passed the first readings with very respectable majorities, but was defeated on final passage before the House, not having the required two-thirds vote.

This was very late in the session, these bills having been pushed aside from time to time until but a few days before final adjournment; but your committee was not to be defeated in that way, and by a strenuous effort had the bill again brought up, reconsidered and passed just in time to get it through the Senate.

We congratulate you and the profession at large on this recognition, and while the sum is not what was asked for, yet it was sufficient to establish a precedent in State appropriations which will enable us, with confidence assured, to go before the Legislature again. Indeed, we had assurances from many prominent spirits in both House and Senate, that if there should be a session the coming winter there would be very little difficulty in securing the amount originally asked for, both for Pittsburgh and Philadelphia.

Let it not be considered a small accomplishment, however, for your committee met the most determined opposition from old school physicians both inside and outside of the House and Senate, and it was necessary for one of your committee to be in almost constant attendance at the legislative sessions. However,

we are glad to report to you that we found the majority of both houses favorable to our proper recognition, and if this now past Legislature is a sample of what we are to have in future, as to liberal, intelligent representatives, we can with confidence expect recognition equal to our standing with the people of our Commonwealth.

The committee would here express its high appreciation of the invaluable assistance rendered by Drs. J. B. McClelland and Childs, of Pittsburgh, the former being especially useful and determined in service for our common cause.

HUGH PITCAIRN, M.D.,
Secretary of Committee.

DR. MCCLELLAND: This report is by the Secretary, and gives a full account of the operations of the committee. He is, however, in error at one point. The original amount asked for was $50,000. Our purpose is to raise $100,000, and we asked the Legislature to give us one-half. We went into the committee asking for $50,000. The committee reported the whole amount, but in the House the amount was reduced, but finally, by hard work, it got through at $50,000. It was then messaged over to the Senate, and passed and approved by the Governor.

Another point. I am sorry any names were mentioned. The success of the bill was due to united effort. No one or two or three could have secured the passage of that bill, but it was the united efforts of the members of the profession, particularly in our own end of the State. The statement as to the cause of the failure of the appropriation to the Philadelphia Hospital is correct. Some of the old school physicians actually lobbied for the bill, and did good solid work.

DR. J. F. COOPER, in behalf of the delegates to the American Institute of Homœopathy, presented the following report:

REPORT OF THE DELEGATES TO THE AMERICAN INSTITUTE OF HOMŒOPATHY,

Session of 1881.

To the Homœopathic Medical Society of Pennsylvania:

In our report, we would say that the meeting just named was the largest in numbers and most auspicious of the number held since its organization. The papers read gave evidence of care and thorough study in their preparation, and in range of thought reached a higher plane, displaying, in the main, a more thorough knowledge of the subjects treated than has been heretofore observed on such occasions.

The discussions were not as free and general as could have been desired. The Transactions will therefore be less interesting to the practitioner who peruses them for the sake of the golden grains of practical experience commonly looked for in the transactions of such bodies.

On this occasion the holding of sectional bureau meetings did not seem to be a success. But a moderate number of the members were seen in attendance. When two or more bureaus or sectional meetings were held at the same time, it appeared to have a distracting influence, and those who would have attended one meeting, on finding that they could not attend all, lost their interest, and in many instances did not go to any. The discussions, as a general thing, were less acrimonious, and a greater range of individual opinion was tolerated than has been observed at previous meetings. The results of scientific investigations seemed to go farther in the settling of disputed questions than individual opinion, as heretofore. The time given to the consideration of the many topics of interest in our larger societies is too short, and the discussions necessarily superficial, but in this instance the sectional meetings did not seem to correct the evil. To give even a short synopsis of the interesting business of the meeting would extend this report beyond the limits of time allowable to a report of this kind. We would say that the meeting seemed to be enjoyed by all. The excursion to Ward's Island Hospital, the banquet at the Brighton Beach Hotel, with all its incidents of social reunion, and the entertainment given by the New York County

Society, will long be looked back to with recollections of pleasure by those who partook of the cheer and by their presence or their speech contributed to the enjoyment of the occasion.

Respectfully submitted.

J. F. Cooper, M.D.,
Chairman.

Dr. J. C. Guernsey, chairman of the Historical Committee, asked permission to make a verbal report of the work of his committee, and asked that the same members be continued on the committee for another year, which was granted.

REPORTS FROM LOCAL SOCIETIES AND PUBLIC INSTITUTIONS.

Reports were then received from the following Societies and Public Institutions:

The Homœopathic Medical Society of the County of Philadelphia, C. Mohr, M.D., Delegate.

The Homœopathic Medical Society of Chester, Delaware and Montgomery Counties, J. E. Jones, M.D., Delegate.

The Homœopathic Medical Society of Allegheny County, J. C. Burgher, M.D., Delegate.

The Homœopathic Medical Society of Germantown, J. Malin, M.D., Delegate.

The Lehigh Valley Homœopathic Medical Society, J. J. Detwiller, M.D., and E. D. Doolittle, M.D., Delegates.

The Lippe Society of Philadelphia, W. J. Guernsey, M.D., Delegate.

The Pennsylvania Homœopathic Hospital for Children, C. R. Norton, M.D., Delegate.

The Homœopathic Medical and Surgical Hospital and Dispensary of Pittsburgh, W. R. Childs, M.D., Delegate.

The American Homœopathic Publishing Society, C. Mohr, M.D., Delegate.

The Hahnemann Medical College of Philadelphia, R. J. McClatchey, M.D., Delegate.

REPORT OF THE HOMŒOPATHIC MEDICAL SOCIETY OF THE COUNTY OF PHILADELPHIA.

To the Homœopathic Medical Society of Pennsylvania:

Our Society continues to prosper. At the present time its members in good standing number 115, a greater proportion of whom attend the meetings more regularly than heretofore. About 40 members are constantly and actively at work on committees and bureaus, and our officers are very attentive to their duties. Harmony prevails, wherefore we all feel happy.

The officers are:

PRESIDENT, ...	W. B. Trites, M.D.
VICE PRESIDENT, . .	H. Noah Martin, M.D.
TREASURER, ...	A. H. Ashton, M.D.
SECRETARY, ...	Charles Mohr, M.D.
CENSORS, ...	J. N. Mitchell, M.D. H. J. Sartain, M.D. G. W. Gardiner, M.D.

Meetings are held every second Thursday in each month, excepting July and August, at 8.30 to 10.30 o'clock, P. M., at the Hahnemann Medical College, 1105 Filbert street.

Our Society has accepted the invitation of your honorable body, and accordingly a paper on "Epilepsy" has been prepared and in due time will be submitted for discussion at this session.

During the past year every matter pertaining to medicine, of public interest, has received our consideration, and at the present time we are engaged in an effort to assert our rights in the public charities of Philadelphia, and hope to succeed.

It has been decided to establish a library and reading room for all homœopathic physicians in Philadelphia, where all who choose may read books and the leading homœopathic and allopathic journals, or spend the time in social intercourse whereby an *esprit de corps* will be established that shall redound to the everlasting honor of our cause.

I am directed to lay before your honorable body the following

preamble and resolution passed at the stated meeting held September 8th, 1881:

WHEREAS, Dr. C. Hering, by the devotion of his eminent abilities to the cause of homœopathy and the enrichment of her literature by the contributions of his diligent pen, has left his indelible impress upon her history, and won a lasting claim to the consideration and respect of her votaries, and

WHEREAS, It is fitting that an opportunity should be given to every member of the profession to evince his appreciation of these valuable services; therefore,

Resolved, That the State Society be requested to initiate a movement to secure the collection of funds sufficient for the erection of a suitable monument to the memory of Dr. Hering.

Respectfully submitted.

C. MOHR, M.D.,
Delegate.

REPORT OF THE HOMŒOPATHIC MEDICAL SOCIETY OF CHESTER, DELAWARE AND MONTGOMERY COUNTIES.

To the Homœopathic Medical Society of Pennsylvania:

The Homœopathic Society of Chester, Delaware and Montgomery Counties would report that they have successfully continued their quarterly sessions through the past year, and have been profited by instructive papers at each session of the Society.

They would bring intelligence of the continued progress of the cause of homœopathy in our counties, with increased numbers of homœopathic physicians and patrons. We also report good feeling and united efforts among the physicians.

We have also to report in sadness the death of our former colleague and still member (though lately moved out of the county), Dr. Coates Preston. Dr. Preston was one most energetic and faithful in the interest with which he attended our meetings and was most thoroughly a champion for the cause of *similia*.

Respectfully submitted.

J. E. JONES, M.D.,
Delegate.

REPORT OF THE HOMŒOPATHIC MEDICAL SOCIETY OF ALLEGHENY COUNTY.

To the Homœopathic Medical Society of Pennsylvania:

This Society was organized December 9th, 1864. The annual meeting is held on the second Friday of December. Regular meetings are held on the second Friday of each month, at the Homœopathic Hospital Building.

OFFICERS, 1881.

PRESIDENT, . . .	W. F. Edmundson, M.D.
VICE PRESIDENT, .	C. F. Bingaman, M.D.
SECRETARY, . . .	T. M. Strong, M.D.
TREASURER, . .	J. B. McClelland, M.D.
CENSORS, . . .	L. M. Rousseau, M.D. H. H. Hofmann, M.D. L. H. Willard, M.D.

MEMBERSHIP.

At our last report (1880), we had an active membership of 41 and associate membership of 1,—42; we have received during the year, to active membership, 1; to associate membership, 2,—3; giving a total membership of 45.

The usual routine work of the Society has been performed during the year, and requires no special mention.

Respectfully submitted.

J. C. BURGHER, M.D.,
Delegate.

REPORT OF THE HOMŒOPATHIC MEDICAL SOCIETY OF GERMANTOWN.

To the Homœopathic Medical Society of Pennsylvania:

This Society was organized in 1879 for the promotion of good fellowship and profitable discussion. It contains in its membership all the homœopathic physicians in the ward, with one exception.

The following are its officers and members:

President, ...	John Malin, M.D.
Vice President, . .	M. M. Walker, M.D.
Secretary and Treasurer,	J. R. Mansfield, M.D.
Members, ...	W. H. Malin, M.D. Horace Homer, M.D. C. Van Artsdalen, M.D. Daniel Karsner, M.D. W. H. Tomlinson, M.D.

Respectfully submitted.

J. Malin, M.D.,
Delegate.

REPORT OF THE LEHIGH VALLEY HOMŒOPATHIC MEDICAL SOCIETY.

To the Homœopathic Medical Society of Pennsylvania:

This Society was organized April 7th, 1881. The meetings are held bi-monthly. The number of members is seventeen. The officers are as follows:

President, ...	D. Yoder, M.D.
Secretary, ...	F. J. Slough, M.D.

Respectfully submitted.

J. J. Detwiller, M.D.,
E. D. Doolittle, M.D.,
Delegates.

REPORT OF THE LIPPE SOCIETY OF PHILADELPHIA.

To the Homœopathic Medical Society of Pennsylvania:

The Lippe Society of Philadelphia was organized about one and a half year ago. The Society is doing good work, and holding semi-monthly meetings. Its membership is not large, but nearly all of the members are constant attendants.

The officers are:

President, ...	Ad. Lippe, M.D.
Vice President, . . .	Ad. Fellger, M.D.
Secretary, ...	Walter James, M.D.
Treasurer, ...	E. J. Lee, M.D.

Respectfully submitted.

W. J. Guernsey, M.D.,
Delegate.

REPORT OF THE PENNSYLVANIA HOMŒOPATHIC HOSPITAL FOR CHILDREN.

To the Homœopathic Medical Society of Pennsylvania:

During the past year a charter was obtained, and the administration of the hospital was reorganized in conformity therewith. Important alterations and improvements have been made in and about the hospital building, giving increased ward room and most convenient dispensary quarters, besides adding greatly to the healthfulness of the house.

The following compose the medical and surgical staff:

Visiting Physicians, .	C. B. Knerr, M.D. J. N. Mitchell, M.D. C. Mohr, M.D. C. R. Norton, M.D.
Visiting Surgeon, . .	W. C. Goodno, M.D.
Ophthalmologist and Aurist,	W. H. Bigler, M.D.
Dentist, ...	S. Guilford, D.D.S.
Resident Physician, .	Edward E. Davis, M.D.

In submitting the following table of cases treated, we would state, that when it is considered that of the whole number twenty-five were under two years of age, and that six of the nine deaths occurred among these twenty-five, the mortality rate is not large:

DISEASES TREATED DURING THE YEAR, WITH RESULTS.	DISCHARGED.				Died.	Remaining.	Total.
	Cured.	Much Improved.	Slightly Improved.	Not Improved.			
Abscess, on sternum,	1	....	....	....	....	....	1
Abscess, psoas,	2	....	....	....	....	....	2
Atelectasis pulmonum,	1	....	....	....	....	....	1
Bronchitis, chronic,	3	....	....	1	....	....	4
Bronchitis, acute,	1	....	....	....	....	....	1
Caries of radius, ulna, and first rib,	....	1	....	....	....	....	1
Caries of astragalus,	....	1	....	....	....	1	2
Catarrh, bronchial and intestinal,	1	....	....	....	....	....	1
Cholera infantum,	4	....	....	....	1	....	5
Chorea,	....	....	....	1	....	....	1
Conjunctivitis, chronic,	1	....	....	....	....	....	1
Croup, diphtheritic—tracheotomy,	1	....	....	....	....	....	1
Cystic sarcoma of thigh,	....	....	....	1	....	....	1
Diarrhœa, chronic,	3	1	....	....	....	....	4
Eczema, impetiginoides,	1	....	....	....	....	....	1
Eczema, chronic, dry,	1	1	....	....	....	1	3
Eczema, chronic, moist,	....	....	....	....	....	1	1
Fracture of middle third of thigh,	1	....	....	....	....	....	1
Favus,	1	....	....	....	....	....	1
Hare lip, single, with cleft palate,	....	....	....	....	1	....	1
Hernia, oblique inguinal,	....	....	1	....	....	....	1
Herpes,	3	....	....	....	....	....	3
Hip disease,	....	1	....	....	1	1	3
Keratitis,	2	....	....	....	....	....	2
Laryngitis,	1	....	....	....	....	....	1
Leucorrhœa,	1	....	....	....	....	....	1
Lichen tropicus,	1	....	....	....	....	....	1
Malnutrition,	1	....	1	....	....	....	2
Marasmus,	....	1	....	....	1	1	3
Necrosis of ilium,	....	1	....	....	....	1	2
Obstruction of the bowel,	....	....	....	....	1	....	1
Ophthalmia, scrofulous, with facial eczema,	2	....	....	....	....	....	2
Ophthalmia, scrofulous,	1	....	....	....	....	....	1
Ozæna,	....	1	....	....	....	1	2
Otorrhœa,	1	....	....	....	....	....	1
Paralysis, infantile,	....	....	1	....	....	....	1
Paralysis, post-diphtheritic,	....	....	....	....	1	....	1
Paralysis, partial, of ankle,	....	....	....	1	....	....	1
Pertussis,	7	....	....	1	....	....	8
Pemphigus,	1	....	....	....	....	....	1
Pneumonia, broncho-, with otorrhœa,	1	....	....	....	....	....	1
Pneumonia, chronic catarrhal,	1	....	....	....	....	....	1
Pott's disease,	....	1	2	....	1	2	6
Prolapsus of rectum,	....	1	....	....	....	....	1
Starvation,	1	....	....	....	....	....	1
Syphilis, congenital,	....	....	....	1	....	....	1
Tuberculosis, general,	....	....	....	....	1	....	1
Tuberculosis, intestinal,	....	....	....	....	1	....	1
Varicella,	4	....	....	....	....	....	4
Weak ankles,	....	....	....	1	....	....	1
White swelling of knee,	1	....	....	....	....	....	1
Total,	51	10	5	7	9	9	91

The dispensary connected with the hospital has a staff of eight physicians. There were cared for at the dispensary, during the year, 1,087 patients; the number of prescriptions dispensed being 4,278.

The current expenses of the hospital, for the year, were $3,312.05.

Respectfully submitted.

CLAUDE R. NORTON, M.D.,
Delegate.

REPORT OF THE HOMŒOPATHIC MEDICAL AND SURGICAL HOSPITAL AND DISPENSARY OF PITTSBURGH.

To the Homœopathic Medical Society of Pennsylvania:

I herewith submit the report of the Homœopathic Medical and Surgical Hospital and Dispensary of Pittsburgh, Pa., for the fiscal year ending April 1st, 1881:

There were remaining in the hospital at last report 24 patients. During the year there have been admitted 305, making a total of 329 patients cared for since the last report was made. Of this number there were 70 paying and 259 charity patients, the latter constituting 78.7 per cent. of all. The cases were distributed in the wards as follows: Medical, 172; Surgical, 110; Obstetrical and Gynæcological, 47. The average number of patients under treatment, each day in the year, was about 24, and the average time each patient remained in the hospital was 27.1 days, equal to maintaining one patient 8,906 days. There were 211 males and 118 females; 322 were white, 4 black, and 3 three copper-colored. Of these 186 were American, 58 German, 58 Irish, 19 English, 6 Scotch, 5 Welsh, 4 Swiss, 2 Canadians, 2 French, 2 Chinese, 2 East Indians, 1 Russian, 1 Swede, 1 Norwegian, 1 Hollander and 1 Italian. *Religion*—Protestant, 208; Catholic, 110; Hebrew, 5; Mohammedan, 3; and 3 foundlings, religion unknown. *Mortuary*—19 deaths have occurred during the year, 5.77 per cent. Causes: consumption, 8; railroad accidents, 3; pneumonia, 2;

typhoid pneumonia, typhoid fever, anæmia, remittent fever, meningitis, and alcoholism, each one.

Dispensary.

In this department there have been rendered medical and surgical services to 13,070 applicants. Out-door visits have been made on behalf of the "Society for the Improvement of the Poor," and the "Ladies' Relief Society of Allegheny," to the number of 561. The dispensary staff was composed as follows: Drs. W. F. Edmundson, R. V. Pitcairn, J. B. McClelland, T. M. Strong, M. J. Chapman, T. J. Putnam, Jno. L. Ferson, S. C. Scott, and S. F. Shannon.

The eye and ear department was under the care of Dr. W. H. Winslow.

Respectfully submitted.

Wm. R. Childs, M.D.,
Delegate.

REPORT OF THE AMERICAN HOMŒOPATHIC PUBLISHING SOCIETY.

To the Homœopathic Medical Society of Pennsylvania:

Since the report made to your honorable body one year ago, only nine physicians have become stockholders of the society, but this number, it is expected, will be largely increased now that Vol. III of *The Guiding Symptoms,* and Hering's *Symptoms of the Mind,* have issued from the press under the editorial supervision of Drs. C. G. Raue, C. B. Knerr and C. Mohr. At present there are 147 individual stockholders, owning 219 shares.

For the information of the members of your honorable Society, I beg leave to submit an outline of the nature, scope and purposes of the Publishing Society:

It is a regularly organized corporation, chartered and constituted a body corporate under the seal of the Commonwealth of Pennsylvania, and by virtue of the provisions of a general act of the General Assembly of that State, possesses the chartered rights necessary for carrying on the business of publishing and selling

books. It is authorized to issue stock certificates to the subscribers to its capital to the extent of 1,000 shares of $10 each, with the privilege of increasing the capital stock by a vote of the members of the society. Under the provisions of the general act, stockholders are liable only to the extent of the par value of the stock held. The stock certificates are issued only upon paid up subscriptions, therefore there can be no assessments made by the society, and there can be no liability beyond the sum actually paid in by each stockholder.

The society is limited only by the bounds of Homœopathic Medical Science. The doors are open to all who have manuscripts to offer for publication, on any phase or branch of medicine, or medical science treated homœopathically. Authors are invited to offer their works, or contemplated works, to this society for publication.

The society aims first of all to give to the profession and the public, thoroughly sound and reliable works; and secondly, to give to its members the material advantage of obtaining medical books at the actual cost of production.

The working capital of the society is contributed by the stockholders, who receive their profits in the purchase of books at cost, which is at about fifty per cent. of the ordinary trade retail prices. A holder of one share of stock costing $10, may purchase one copy of every volume published by the society *at cost.* It is therefore clearly to the advantage of every purchaser of homœopathic books to become a stockholder in this corporation to the extent of at least one share of stock. This stock is transferable, and therefore the liberal patrons of this school of medicine can do a good work by subscribing to the stock of the Publishing Society and transferring their shares to students of medicine, to graduates and to young physicians, who would thereby be enabled to enjoy the advantages of buying the best books at cost. A subscriber to stock can direct the certificates to be made out in the name of himself or his beneficiary, or can authorize any homœopathic college to nominate one worthy of his benefaction.

The management of the society is vested in a Board of Directors, chosen annually by the stockholders, whose annual meeting this year will take place in November.

The present Board consists of

A. R. Thomas, M.D., *President.*
W. C. Goodno, M.D., *Treasurer.*
C. Mohr, M.D., *Secretary.*
B. F. Betts, M.D.
M. M. Walker, M.D.
C. B. Knerr, M.D.
C. R. Norton, M.D.

From the last annual report I beg leave to extract the following:

"Since the report submitted one year ago, the society has issued Vol. II of Hering's *Guiding Symptoms*, which was more favorably received even than Vol. I, and soon after its appearance many new subscribers were secured for the whole work, some of them (35) becoming stockholders in the Publishing Society.

"The death of the venerable author necessarily delayed for a time the labor required to put the MS. of Vol. III in condition to give to the printer. The literary executors, however, are now busily engaged on this volume, and it will be placed in the hands of the subscribers at no distant day. Our agents, Messrs. J. M. Stoddart & Co., who have a large experience in the sale of subscription books, assure us that it only requires that one or two more volumes shall be issued to insure a very large addition to the list of subscribers. This consummation will be much more speedily reached if more of the profession can be induced to purchase stock and Vols. I and II *at once.* This will encourage the editors, who, it must be understood, are laboring without any remuneration, and are willing to do all they can to publish the whole work, *if the profession wants it.* Dr. Hering labored incessantly on the *Guiding Symptoms* for fifty years, sacrificing ease and money, hoping some day to give to the world the best and most complete Materia Medica ever published. His hope may be realized if the homœopathic profession wills it so. The MSS. are in such shape as will enable the editors to do their appointed work. It should, therefore, be the endeavor and pleasure of every homœopath, who feels any gratitude for what Hering was to

homœopathy, to become a holder of at least one share of stock, costing $10, and a purchaser of the volumes as they appear. This work is Dr. Hering's self-erected monument, one that does him more honor than any that may be reared of stone, and more enduring and endearing, and, being a legacy to his family, can only be made a source of revenue by its publication and *sale.* Our recommendation, therefore, is that each stockholder will further interest himself to the extent of inducing other members of the profession to become stockholders.

"During the year no work has been offered for publication. This is to be deprecated. The publication of some small books that would meet with a ready sale would be the means of rapidly increasing the interest of the profession in the society and its objects."

Appended to this annual report is the Treasurer's Report, which clearly shows the financial condition, and for that purpose is here given.

Treasurer's Report.

RECEIPTS.

By Balance in Bank, November 3d, 1879, - -	$205 70
" Cash for 35 shares of stock sold, @ $10 each,	350 00
" " Books sold, - - - -	798 00
" Interest, - - - - -	3 63
	$1,357 33

PAYMENTS.

To Globe Printing House, for printing *Guiding Symptoms,* Annual Report, etc., -	$753 67	
" C. Hering and Estate, for royalty on *Guiding Symptoms* sold, - -	92 25	
" J. M. Stoddart & Co., for binding *Guiding Symptoms* and commission on sale of Books, - - - -	444 94	
" Secretary, for Stationery, Postage Stamps, etc., - - - -	19 24	
		1,310 10
Balance in Bank, - -		$47 23

W. C. Goodno, M.D.,
Treasurer.

Since this last financial exhibit, books to the value of $431.55 have been sold.

The doors are still open for those who may become stockholders to buy the books already published at stockholders' rates, but they will soon be closed. After a given date, to be fixed at next meeting of the Board of Directors, society benefits will only apply to the books published after the date of subscription to shares, the books published before that time being held at the regular retail prices to all purchasers.

Respectfully submitted.

C. Mohr, M.D.,
Delegate.

REPORT OF THE HAHNEMANN MEDICAL COLLEGE OF PHILADELPHIA.

To the Homœopathic Medical Society of Pennsylvania:

In behalf of the Hahnemann Medical College of Philadelphia, I beg leave respectfully to report that the last session of the College may be looked upon as the most successful year of its existence, since its establishment in 1848. A full course of lectures in all the departments of medicine and surgery, together with many clinics, were given to a class of 199 attentive students. At the Commencement, holden in the Academy of Music, March 10th, 1881, the degree of Doctor of Medicine and the special degree of Doctor of Homœopathic Medicine were conferred upon 83 graduates.

The prospects for the coming session may be reported emphatically as *good*. Little or no change has taken place in the curriculum of instruction pursued in the College. In the corps of instructors the following change only has been made, viz.: Prof. A. Korndœrfer, M.D., resigned the chair of Clinical Medicine and Physical Diagnosis, and the vacancy thereby created was filled by the election of Chas. Mohr, M.D., of Philadelphia, formerly Chief of Clinics, and an able and competent instructor. The Trustees and Faculty of the College are unitedly determined to leave nothing undone to secure a proper education for its students, and to prepare them for

the serious business of battling against disease in accordance especially with the benign method of Hahnemann.

Respectfully submitted.

R. J. McClatchey, M.D.,
Delegate.

REPORT OF THE NECROLOGIST.

Dr. W. R. Childs reported that there had been five deaths since the last session of the Society. W. McI. Ostrander, M.D., of Pittston; C. A. Stevens, M.D., of Scranton; Coates Preston, M.D., of Wilmington, Del.; W. F. Speth, M.D., of Lewistown; and a corresponding member, Ignacio Pereira, M.D., of Bogota, S. A. He had been unable to get sufficient data to enable him to present a full report, and expressed his indebtedness to Drs. J. B. Wood, of West Chester, and Charles Arthur, of Scranton, for information in regard to Drs. Preston and Stevens, respectively.

CHARLES A. STEVENS, M.D.

Dr. Stevens was born in Harpersfield, Delaware county, N. Y., January 19th, 1818. He was educated at Homer Academy, N. Y. He studied medicine, first under Dr. H. P. Burdick, of Preble, Cortland county, N. Y., and later under Dr. John Stevens, of Ithaca, N. Y. He graduated at Geneva Medical College, N. Y., in 1841. He practiced first at Seneca Falls, N. Y., and in 1842 went to Palmyra, N. Y., and practiced two years. He spent a short time in Cortland, N. Y., and at Coxsackie, N. Y. In 1862 he settled in Scranton, Pa., and remained there up to his death, which took place on January 17th, 1881, from Bright's disease. The Doctor was a senior member of the American Institute of Homœopathy. He became a member of our Society in 1867.

COATES PRESTON, M.D.

Dr. Preston was born January 20th, 1820, near West Grove, Chester county, Pa., and died at Wilmington, Del., August 9th, 1881. His early education was obtained in the common schools. Before studying medicine he graduated and obtained a literary

diploma, after two years study, from the college at Whitestown, New York.

He read medicine with Dr. C. Harlan, of Wilmington, Del., and graduated at the Homœopathic Medical College of Pennsylvania in 1853. He commenced the practice of medicine at Sculltown, N. J., where he remained two years, and removed from there to Woodstown, N. J., where he remained a short time, and then removed to Chester, Penn'a., where he remained until April, 1881, when he removed to Wilmington, Del.

Dr. Preston has written many articles for the Homœopathic Medical Society of Chester, Delaware and Montgomery Counties, of which he was a member, a number of which appeared in the *Hahnemannian Monthly*. He became a member of the American Institute of Homœopathy and the Homœopathic Medical Society of Pennsylvania, at the sessions held at Pittsburgh in 1866. No man in the profession was more conscientious and devoted to his patients than he.

On motion, the President appointed Drs. McClatchey, Way and Willard, a committee to draft suitable resolutions upon the death of James A. Garfield, President of the United States.

The Committee presented the following preamble and resolution:

The Homœopathic Medical Society of the State of Pennsylvania, in regular annual meeting assembled, at West Chester, Pa., this day, Sept. 20th, 1881, having heard, with saddened hearts, of the death last evening, at Long Branch, N. J., of the gallant soldier, wise statesman, good citizen and beloved President, James A. Garfield, hereby attests its recognition of, and profound grief at, the great loss our country has sustained in his untimely decease; and hereby expresses its deep and heartfelt sympathy with the bereaved widow and orphaned children of our Chief Magistrate.

Resolved, That this action of the Society be printed with its publications, and a copy thereof be sent by the Secretary to Mrs. Garfield.

R. J. McClatchey, M.D., Philadelphia,
J. H. Way, M.D., West Chester,
L. H. Willard, M.D., Allegheny,
Committee.

Dr. Toothaker: I sympathize with the thoughts contained in

this report, and hope it may be adopted. I may also say that no event has occurred in many years calling for so much of true sentiment, so much manifestation of feeling, as this visitation which has come upon us in the loss of President Garfield: a man of such eminent talent, sterling character, so many excellencies. His sickness has seemed to unite the various sections of the country, uniting people of opposing sentiments, diverse opinions and interests, in one common brotherhood, as though looking to him as a common father.

President McClelland: If there are no further remarks, the Society will give its assent by a rising vote.

This was unanimously done.

On motion, it was ordered that a copy of the resolutions be telegraphed to Mrs. Lucretia Garfield, at Long Branch.

Dr. McClatchey: The committee are of the opinion that the banquet tendered the Society by the proprietors of the Turk's Head Hotel would be out of place at this time.

Dr. Wood: I entirely agree with the sentiment; at this time a banquet would be improper. I move, therefore, that the banquet be dispensed with, and that a vote of thanks be tendered to the hotel proprietors for their proposed entertainment. Carried.

REPORT OF THE BUREAU OF GENERAL SANITARY SCIENCE.

Dr. Pemberton Dudley, chairman of the Bureau of General Sanitary Science, presented the following papers, which were accepted and referred to the Publishing Committee:

The Health Resorts of America, by the Allegheny County Society.

Sewage and Ventilation, by J. B. Wood, M.D.

On the Use of Disinfectants and Antiseptics in the Management of Contagious and other Diseases, by A. R. Thomas, M.D.

Agriculture in its Relation to Health, by Pemberton Dudley, M.D.

THE HEALTH RESORTS OF AMERICA.

BY THE HOMŒOPATHIC MEDICAL SOCIETY OF ALLEGHENY COUNTY.*

The Hygiene of Health Resorts.—The subject of health resorts is one that has been very much neglected by the profession generally. The country is liberally supplied with every variety of resorts, both for pleasure and health, yet, when it becomes necessary to advise a patient as to where he should go in search of health, how few of us can do so intelligently. Almost every physician in active practice meets with cases that in time fail to respond to the usual treatment. Remedy after remedy is tried and fails to afford even temporary relief. The patient is nervous, restless, sleepless, has no appetite and is daily growing weaker. He is slowly but surely going down hill and the doctor is at his wit's end. Something must be done, and quickly; so, in a fit of desperation, the doctor prescribes a change of air and packs him off to some place, the chief recommendation of which is usually its cheapness. Little, if any thought is given as to whether or not the place is a desirable one, as to climate and surroundings. The doctor can do nothing more in the way of internal treatment, and says the only chance is in a "change of air." Thus the health resorts of the country are in truth the *last* resorts of the doctors.

Now, the fact is, that many of these seemingly hopeless cases do actually improve, even when sent away from home under such adverse circumstances, and the question naturally arises as to the propriety of waiting until internal treatment has entirely failed, before recommending a change of climate, and whether, if tried earlier in the disease, these improved hygienic surroundings might not second the efforts of the remedies and thus prove more beneficial. This question of sending patients away, and where to send them, is a serious one, and should have the serious consideration of every physician.

It is a species of cruelty in a physician to send a patient whom he knows to be dying of consumption, to a place perhaps a thousand miles from his home, simply to die.

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* This paper was prepared by a committee consisting of Drs. S. C. Scott, R. V. Pitcairn, T. M. Strong, J. L. Ferson and John Cooper.

This thing of sending cases in the last stages of phthisis off to Florida or Colorado is all wrong.

Jacksonville, Florida, has the second highest death rate in the United States (something over 70 per cent., if I recollect correctly), not because it is an unhealthy place in itself, but because of the people who are sent there in a dying condition. And, as Vallejo, Col., and Jacksonville, Fla., have the two highest death rates in the country, and both are known resorts of consumptives, it is easy to see that this reprehensible practice among physicians is not exceptional.

Having decided to send a patient away, there are a few important points that must be taken into consideration in selecting a place that will as nearly as possible meet the requirements of the case.

Great care should be exercised about sending patients from one extreme of climate to another. The process of acclimatization is often a severe one, and superadded to that of an already existing disease, no doubt taxes a debilitated system very severely.

Patients, especially consumptives, who improve in a new climate should be cautioned against returning to the place where they contracted the trouble, even on a visit, as the most disastrous results sometimes follow.

A point of great importance is the social surroundings of your patient. He should have perfect rest and quiet and at the same time cheerful companionship. The *first* you would hardly expect to find in a hotel crowded with pleasure seekers; or the *second* in a house full of invalids. Make a distinction between health resorts and resorts of pleasure. Do not send sick people to a place where the routine of amusements and pleasure would and does wear out the most robust in health, and sends them home at the end of the season more tired and miserable than at its beginning. As a rule, no invalid should be sent from home unless accompanied by some member of his family, upon whom he can depend for the care and attention he needs.

The hygiene of health resorts has of late been receiving, as its importance demands, more attention and study from the profession, especially that department of hygiene relating to drainage. On account of their low elevation, the proper drainage of seaside

resorts has been and is still a difficult problem to solve, and while some of them enjoy exceptionally bad reputations among the profession, all are more or less defective. This is especially true of the newer and more recently established resorts, the older places having made more or less successful attempts at drainage. The absolute necessity of better drainage at these places is ably set forth in a paper in the *Hahnemannian* of August, 1881, entitled, 'The Drainage of Seaside Towns and Hotels,' by Dr. Bushrod W. James. There should, of course, be no difficulty in maintaining a proper system of drainage and procuring the best hygienic conditions at mountain resorts.

You will find the claims of the different mineral springs, mountain and seaside resorts set forth under their respective headings.

S. C. Scott, M.D.

Mountain Resorts.—In the consideration of health resorts, the attention is primarily directed to all those physical conditions embraced by the atmosphere which are essential to health.

In a hygienic view, we mean by the climate of a region the qualities and differences of the air as regards rarity, heat and moisture.

The physical conditions of the air of higher altitudes are its greater rarefaction and dryness, with a uniformity of temperature varying only according to the latitude and height of the land.

The atmosphere of high elevations is also free from those impurities which usually surround crowded habitations, or of the foul emanations from points of low altitude—conditions which preclude the presence of miasmatic poisons. Moreover, it is to be said, in addition, that the air here is rendered more salubrious by being laden with a variety of exquisite odors from the pine and other fir trees of the forests in these districts, and which, it is generally admitted, have a beneficial influence on the system, particularly in respiratory affections.

Although there is greater rainfall in the mountainous regions, the rarity of the atmosphere prevents such a saturated condition of moisture as is present with the air at points of lower elevation. The undulating surface of the land, and, in many places, the porous nature of the soil, permitting rapid drainage, also tends to prevent the retention of moisture.

The forests, too, lately recognized as mitigating the severity of the weather, by breaking and affording protection from the winds, form another potent factor in the formation of the climate of mountain ranges.

The equability and purity of the air is a very essential feature in the treatment of chronic affections generally, since it permits of that great desideratum, out-door exercise, which more variable weather would prevent.

Estimating the comparative effects of the different regions resorted to for the influence of the climate in the restoration of health, it would seem that a dry, rare, and steady atmosphere is more favorable than a somewhat moist and invariable one, though warmer. Yet a combination of these conditions is greatly to be desired, and it is in the higher regions of the southern portion of the Union that such weather is in a measure obtained. Life in the elevated parts located here, owing to its latitude and the slight effects incident to the change of seasons, offers excellent opportunities to those who are to be benefited by a mild and unvarying climate.

Elevated regions are resorted to mostly by those who seek recreation during the oppressive and stifling heat of our hot seasons, but the most important consideration at the present time is the comparative fitness of higher regions, with that of other resorts, for the invalid, and for many of them it affords excellent advantages for a return to health.

The winter weather of the more northern ranges of mountains in the United States, also, is preferable to that of a lower elevation, judging from its near approach in character to that of Minnesota, which is claimed by its advocates to vie in healthfulness with the well known and genial climate of Florida and the coast of California. Minnesota is noted for its dry, clear, equable atmosphere, and in the mountainous districts we have similar conditions present.

It has been observed that much benefit is derived by consumptives, especially those with the catarrhal form of phthisis, from prolonged sojourns in the mountains, and that parties who return from their visits at the approach of the winter season, seldom manifest any permanent improvement.

To the air of the higher mountains, on account of its properties, already stated, is attributed the influence of alleviating the overcharged secreting tissues and an intensive raising of the nervous system. The total action of the atmosphere of the mountains is an uncommon incitation of all the vital processes.

It would follow, then, that much discretion should be exercised in regard to the elevation recommended for invalids, especially with very weak patients.

Besides phthisis, emphysema, and other respiratory affections, the mountains afford relief to sufferers from cerebral diseases and other nervous maladies, characterized by debility or mobility; also, rheumatism and gout. Diseases of the liver and dyspepsia would be benefited by mountain life, particularly from camping out during the summer season.

Meteorological observations of the different localities in the mountains are rather meagre. The mean temperature and the humidity of the climate for each section is mentioned here in a general manner, although the accurate observation of the mean daily temperature, humidity and precipitation is what would be desired; and it is to be regretted such information could not be obtained.

It is not the purpose of this paper to bring forward all the mountain retreats, but to mention, as far as practicable, the conditions present at points in the mountain regions of different sections to which access may be had, and that will prove of advantage to the invalid.

Beginning with the Appalachian system, we have in the first section, comprised of the White and Green Mountains, a region exceedingly healthy, and among the inhabitants are numerous cases of remarkable longevity.

The White Mountains, situated in the northern part of New Hampshire, expand into a plateau, extending over the northern portion of the State, which is from 1,600 to 1,800 feet high. The isothermal belt indicates a mean annual temperature of 45°. The winters are excessively cold in the neighborhood of the mountains, though all the seasons are very steady. A difference of 20° to 25° exists between the elevated portions and the valleys.

As the summer resort of the New Englander, this district has

obtained some renown. Sufficient data could not be obtained to give any peculiar effects afforded by this region more than is contained in the general statements already made.

The climate of the Green Mountains in Vermont is similar to that of the White Mountains, and quite healthy. Both these places can be conveniently reached.

The Adirondacks region comprises the second section of the Appalachian system, and is styled the "Wilderness of New York." It occupies the north-eastern portion of the State, north of the Mohawk and west of the Champlain Valley.

It forms a plateau from 1,500 to 2,000 feet above sea level, a hundred and fifty miles in length (latitude), and a hundred miles in breadth (longitude). The surroundings are said to be unequaled, in this country, for furnishing the invalid or pleasure seeker a stimulus for open air life. As indicated by the thermal belt, the average temperature for this section of country is 45° to 50°. The precipitation is considerable, but, owing to the porosity of the soil, is carried away with great rapidity, leaving no dampness.

The winters are cold and uninterrupted, the thermometer registering many degrees below zero for days at a time.

The elevation of this region varies with different localities, but in the neighborhood of the lake region is said to be about 1,800 feet high.

Many conditions tend to make this region favorable to the treatment of chest affections. The elevation rendering the air such as not to retain much moisture, the undulating country and the porous nature of the ground ensures against dampness, which acts unfavorably on phthisical patients.

Dr. Loomis, of New York, in a paper on the Adirondacks, published by the *Medical Record* for April, 1879, furnishes a list of some twenty-one unselected cases of phthisis that have journeyed in this region, all of whom showed remarkable improvement. Those who were induced to stay throughout the entire year, even though they were well advanced in phthisis pulmonalis, attained permanent and surprising improvement therefrom. From these observations, made personally, he advocates a continued sojourn in this region for patients suffering from the catarrhal form of phthisis.

Fibrous phthisis was not benefited much, and the tubercular form was not abated to any extent by recourse to this resort.

The accommodations are better than in former years. It is said those who do not like camp life in the wilder parts may so arrange their movements as to find shelter in the habitations of the trappers or lumbermen. Hotel accommodations are now very satisfactory and convenient.

In the next section of the Appalachians, extending from the Mohawk to northern Alabama and Georgia, comes first the Catskill range, situated on the west bank of the Hudson river. It abounds with picturesque scenery, and is a prominent resort for the pleasure seeker. Its climate does not materially differ from that of the Adirondacks. This range is quite accessible. As a health resort it does not compare very favorably with the Adirondacks, yet during the summer season it is highly beneficial.

Coming nearer home, in Pennsylvania there are many mountain ranges, but among them there are but few points of importance to the sick. No peculiarity uncommon to mountains generally, or any influence peculiarly adapted to any particular disease, is found here. However, they afford all that is requisite for those who are enervated or are debilitated from the excessive heat of summer and desire recreation. Prominent among these resorts are: Cresson, in the Allegheny Mountains, on the Pennsylvania railroad, with all the conveniences desirable for well regulated living. Kane, in McKean County, on the Philadelphia and Erie railroad, which is said to afford relief to sufferers from hay fever and asthma. Ebensburg, Cambria county, is another point of similar interest.

In Virginia are the Blue Ridge, North, and Alleghany Mountains, with branches expanding into plateaus having a general elevation of 3,000 to 3,500 feet. Between these ranges is a part of the great Appalachian Valley, the western elevation of which is much higher than the eastern. This region affords many places of importance as health restoring localities. The mild winters and salubrious summers, together with the comparative dryness of the air, are the properties which render this climate particularly valuable to the sick. The winters are very tolerable, and sojourns here can be continued throughout all seasons with benefit. Green-

brier county, the location of the White Sulphur Springs, which are at an elevation of about 2,000 feet, and adjoining counties contain some of the more important situations as resorts. The accommodations are good, and the locations easy of access. The average mean temperature is 65°; the average rainfall is not considerable. This region, in connection with the springs, is said to be admirably adapted to cerebral diseases and other nervous maladies.

In the continuation of these ranges farther south, there are numerous localities with very genial climatic conditions. In North Carolina is Morgantown at an elevation of 1,100 feet, with beautiful surroundings, and in every manner attractive as a health resort. In the vicinity, also, are many points of interest. Asheville, a place of wide repute as a resort for phthisis, is a commendable location.

South Carolina contains Spartansburg, a very healthful location. Many natural curiosities are found in the vicinity, with summer resorts in the higher elevations near by. At Tyron Valley, not far off, frost rarely occurs, and snow falls only to melt as it reaches the ground. It is an elegant location for consumptives.

Throughout the northern portion of Georgia the elevation and climatic conditions are excellent in the treatment of respiratory affections. The atmosphere is very mild and genial. Clarksville and Clayton have some repute as resorts. Bath, Richmond county, is said to possess in a most perfect degree the conditions necessary to the treatment of phthisis.

The mountainous districts of Tennessee present an excellent atmosphere, with many healthful locations.

Northern Alabama contains the limits of these ranges of mountains. This district is exceedingly genial throughout the year, and is very popular with consumptives, to whom it is very beneficial.

The climate of these southern mountain regions is said to be of most importance in the tubercular form of phthisis and in the later stages of other forms, when the system is weak and without much reactive power.

The Ozark Mountains in Arkansas, the location of the White Sulphur Springs, is a very favorable resort during the warm sea-

son for sufferers from rheumatism, diseases of the nervous system and maladies generally dependent upon a dyscratic condition of the system. The winds are rather severe here at other portions of the year.

In the ranges of the Rocky Mountains in Colorado is to be found an atmosphere so pleasant in character to breathe as can scarcely be found elsewhere. It has neither a stimulating nor a soothing action, but is of that pure nature which seems to sustain one's most wholesome and happy moods. The air is much dryer than that of the Adirondacks, the elevation is higher and the temperature much milder in winter, though subject to sudden and marked changes. The atmospheric conditions are said to be those which result from the great dryness of a country situated in the temperate zone, together with the effects to be ascribed to its altitude.

At Denver, situated near the base of the mountain, at an elevation of about 4,000 feet, the extremes of heat and cold are greater than in the mountains. The coldest weather experienced in Denver is about 30° below zero.

In San Luis Park the weather is milder and the elevation much higher than Denver. There is an occasional severe day, but the atmosphere is generally clear, temperate and exhilarating.

Colorado Springs possesses a milder atmosphere than Denver, and is said to be a more favorable resort. Many other situations of interest to the invalid are located here, but possibly do not possess any features uncommon to those mentioned.

In the early stages of phthisis, when the organism still retains much of its vigor and the recuperative power is good, no place probably can rival Colorado as a resort for such patients.

The fibrous form of phthisis is claimed to receive most benefit from this climate, owing to the elevation. As a location for convalescents generally, it is unsurpassed.

The tropical nature of the climate of California would, perhaps, be suggested by the reports of the wonderful freaks of vegetation there.

Though the climate is quite variable at different parts, it is generally mild and genial. It is for this reason, chiefly, that it is in such repute as an agreeable and healthful location for invalids, particularly consumptives.

In the mountain districts here are to be found, to a favorable degree, those conditions already alluded to as of such importance to phthisical patients. From a report of the State Board of Health, of the State of California, kindly furnished by F. W. Hatch, M.D., its Secretary, we have an account of several of the most favorable and inviting localities in the State for the invalid. These situations were investigated by a committee, of which Dr. Hatch was a member, appointed to report to the State Legislature the most favorable position for the establishment of a State Hospital for consumptives. Among the places visited and reported by the committee are: Atlas Peak and vicinity, in Napa county, situated on a ridge of the coast range of mountains, at an elevation of about 1,500 feet. The mean winter temperature is 50°; its summer temperature 74°; and the mean annual humidity 45 per cent., the moisture being greater in winter than summer.

Veeder Mountain, in Napa county, near Napa City, is at an elevation of 2,300 feet. As in most all the mountain localities here the temperature sometimes at midday, it is said, is as high as 98°; the minimum morning temperature being about 48° or 50°.

Howell Mountain is at an elevation of about 1,700 feet. Its temperature is mild and agreeable; the air dry and invigorating.

Troutsdale, Napa county, on the north side of Mount Saint Helena, is at an elevation of about 1,600 feet. The atmosphere is dry, and the temperature has the general characteristics of Blake's Sanitarium, the next point to be mentioned.

At Blake Sanitarium, on St. Helena Mountain, the maximum temperature for January, 1878, was 42.2°; its minimum 39.2°. For July 85.5° maximum, and 59° minimum. This point is said to be the nearest locality to San Francisco exempt from fogs.

Lakeport, Lake county, has a reputation as a health resort unsurpassed by any other. It is a favorite location with invalids from the surrounding portion of the State. Its altitude is near 1,200 feet. The thermometer seldom falls 15° below the freezing point in winter, and the summers are similar to those of Sacramento.

Ojai Valley, in Ventura county, lying at an elevation of about 1,200 feet, is well protected from ocean winds and fogs. The temperature in summer is from 70° to 96°. In the winter of 1878–79 the lowest was 26°.

Sierra Madre Villa, Los Angelos county, located in the foothills of the Sierra Madre Mountains, is at an elevation of about 800 feet. Its maximum temperature for the year 1875 was 87.5°; minimum, 47.4°; mean, 67.5°.

These points are said to be elegant retreats for the sick. The conveniences are good and the places easily accessible. The climate is especially favorable to the tubercular form of phthisis and for patients whose constitutions are reduced and require a mild, genial climate.

R. V. PITCAIRN, M.D.

Seaside Resorts.—Our line of sea-coast, extending many thousands of miles, presents many points of similarity as well as differences in its meteorological characteristics, the minute points of which cannot be given in a paper of this kind.

The Atlantic Ocean, extending from the cool regions of the north to the warm regions of the south, and with a mean breadth of 2,700 miles, is the one which furnishes the greater number of resorts for the tourist and invalid.

The Pacific Ocean, in consequence of its distance from the mass of our population, does not possess the interest to the profession and laity which its health giving qualities deserve.

We have as general characteristics of the two oceans, speaking now simply in regard to their surfaces as bodies of water, the following: The greatest length of the Atlantic is from east to west; that of the Pacific from north to south; the principal currents in the Atlantic run between the equator and the northern seas; in the Pacific between the equator and the southern seas; in the Atlantic, the tides are high, in the Pacific they are low; the Pacific feeds the clouds with vapors, and the rains feed the Atlantic with rivers (If the volume of rain which is discharged into the Pacific and on its slopes be represented by 1, that discharged upon the hydrographical basin of the Atlantic would be represented by 5); the Atlantic is the most stormy, while the Pacific is the mildest sea in the world.

We shall first devote our attention to the Atlantic Ocean. The great modifying meteorological influence here is, as we all know, the Gulf-stream. This stream carries the tropical temperature

into the middle latitudes, and is assisted by the equatorial trade-winds. The polar winds return the compliment by bringing along our easterly shores and overland the chilling winds of the ice infested seas. In the northern hemisphere, all heating influences, winds and waters, coming from the equatorial regions, take their course to the north-east, while the cooling influences, winds and waters, from the polar regions, are directed south-west. In consequence of the companionship in the Atlantic of the south-west equatorial winds and the Gulf-stream, as they travel towards the north-east, the isothermal lines are thrown farther to the north. The land and sea breezes along the gulf-shore are more regular in their alternations, because the shores lie nearly parallel with the prevailing direction of the wind, and there is, as a rule, less of that dampness along the Florida coast than along the shores of our Middle and New England States. The dampness which occasionally prevails along the Atlantic coast when easterly winds prevail, is attributed also to the Gulf-stream. The air over this warm current being charged with moisture, the cooler air of the north causes its precipitation.

From the nature of their positions, the resorts along the sea-shore must be subject to variable changes, and we frequently have the variations from intense heat to chilliness, accompanied with an excess of moisture. At times the air is stimulating, while at other times it debilitates. There are times when the wind blowing along the Atlantic coast brings an air which, although saturated with moisture and possessing the usual dampness, may, nevertheless, cause the atmosphere to feel heavy, oppressive and sultry, from the fact that the air, already overcharged with moisture, cannot relieve the air-cells by aeration, and carry away the waste matter brought by the blood-vessels for the purpose of oxidation; at other times, the air is dry and hot (land-breeze), and it conveys off matter from the lungs too fast, leaving behind it a sensation of extreme heat or burning. These disagreeable effects would undoubtedly be much more frequent were it not for the agitation of the air, which the difference in degree of radiation between the land and sea sets in motion.

Notwithstanding the excess of moisture and high temperature at the sea-shore, the air is pure, free from dust, and contains ozone

in large quantities. The air may, however, be rendered impure, in consequence of an excess of vegetable and decaying matter using up the ozone, and thus giving an opportunity for these gases to spread contamination, an event which has occurred at some of our popular resorts. The sea-shore itself consisting, in many places, of new deposits, frequently washed, comparatively free from animal and vegetable matter, and thus exposed to the direct rays of the sun may, and does, escape this decomposition; but the sanitary regulations of the larger places where thousands go every season, should be carefully inspected, the sewerage, the surroundings, marsh or lake, the water supply, should all be known, or else the beneficial effects of the sea-air may be seriously interfered with by the poison from the land.

The neighborhood of the sea moderates the excesses of temperature, so that as a general rule the temperature along the coast is several degrees cooler in summer and warmer in winter than at points inland.

There is a division of seaside resorts which might more properly be called "ocean" resorts, of which division the Isles of Shoals is a well known type. The latter possesses a very equable temperature, sudden changes being a rare exception, and is consequently never very hot or cold. A writer in the Boston *Medical and Surgical Journal*, No. 1, 1881, very properly speaks of its atmosphere as possessing "a peculiar 'blandness'; non-stimulating, but rather quieting, rarely enervating." This is to be accounted for by its distance from the land, so that land breezes are almost unknown, and when from a combination of physical causes they do occur, although the inconvenience resulting is the same as that experienced on the coast line, yet they are modified to a great extent by the surroundings. There is, also, less dampness on the islands that at points of the coast. The uniformity of temperature even between the days and nights at these points may be explained by the fact that as the islands become warmer sooner than the sea, the warm air ascends and the fresh air of the sea (sea-breeze) rushes in; at night the conditions are reversed, the land loses heat by radiation and cools quicker than the sea.

With this constant air off the ocean the visitor at the islands has all the advantages of a sea voyage without the disadvantages

of a life on shipboard. The sewage or drainage facilities are of the best, and vegetation limited.

Persons whose business called them to remain on the islands through the winter, testify to the same uniformity of atmospheric conditions characteristic of the season, as takes place during the summer.

In regard to the physical characters of the Pacific slope, we may say, in brief, that the warm Asiatic gulf-stream or Japanese current is so far removed that it loses a greater portion of its heat before it reaches the American shore, in consequence of the large circuit which it makes into the north, and hence modifies the climatic conditions which prevail. These effects are aided by the fact that as equatorial winds alone have an influence, the increase of temperature is still further controlled. Along the more northern points, in the region of San Francisco, fogs are of frequent occurrence and carry with them a chilling influence. Westerly and north-westerly winds prevail and bring with them along the southern coast the soothing influence of the sea-air. The fogs in this section are less prevalent and lighter.

We now come to the more practical part of our subject, the diseased conditions which are likely to be benefited by a sojourn at the sea-shore. And I would, at the outset, acknowledge my indebtedness to the monograph of Dr. Beard on Hay Fever, and to an article entitled 'Our Seaside Resorts,' by Prof. B. Frank Betts, which appeared in the *Hahnemannian Monthly*, vol. xiv, page 449.

The influence of cold and warmth upon that great entrance gateway to the tissues of the body, the skin, should be well considered and understood, both for the robust and the invalid. Especially is this atmospheric influence to be considered when sending our patients to the seaside. The physical actions of the sea-air, arising from the exchange of the warmth or moisture of the air, and the atmospheric pressure, must possess an influence over so susceptible a tissue as the skin and its congener, the mucous membranes.

In choosing a place for the sick we must always consider whether irritating or soothing climatic influences prevail. Places located on middle elevations produce as a general thing no marked changes.

The air of the sea and the highest mountain ranges furnish the contrast in the climatic conditions of health resorts, and it is at these points that the air is freest from impurities.

We may often derive benefit by a change of place within a few miles, or from a lower to a higher elevation, when improvement which was at first evident, afterwards ceases.

We would draw the general line, that diseases characterized by destruction of tissue and profuse catarrhal secretions are not benefited by a seaside sojourn, while those of general debility, loss of nerve tension, and functional forms of disease are materially relieved or cured, according to the time given for recuperation.

Patients suffering from malarial poisoning with biliousness, hepatic congestion, deficient secretion of bile, constipation, jaundice, more or less severe, loss of appetite, in fact a want of "tone" throughout the whole system, are benefited by the sea air.

Rheumatism, gout and neuralgia, need a warm, moist and sedative climate, such as, for instance, the eastern coast of Florida during the winter season, or later, along the shores of North Carolina and Virginia: those places, especially, where the wind is not, as a rule, apt to be high.

Vascular congestion, irritation and scanty secretion require a soft, mild climate.

Diseases of constitutional origin in children, characterized by torpor of the circulation, the lymphatic glands, and the secreting surfaces, are said to derive benefit from a residence at the seaside, while scrofulous and syphilitic diseases are not benefited. It seems to me that it might very often be difficult to draw the distinction between the symptoms given above and the term scrofulous as used below. We should be inclined to send all such patients to those sulphur and calcic springs situated on the higher elevations.

Benefit will also be found for those who are suffering from impaired nervous function dependent on simple debility, or overwork, mental or physical, or those who are recovering from acute diseases. For irritable temperaments a mild climate and moist atmosphere are preferable, together with an elevation of from 200 to 2,000 feet.

Those who make use of the sea-coast for throat or lung troubles

should seek it early in the course of the disease, since the variableness of our coast climate unfits it for these troubles; along the southern coasts these objections do not apply to an equal extent, except where the air is heavily charged with moisture, subject to frequent precipitation from cold winds.

In the early stages, then, where there is a dry cough, debility, want of appetite, sleepless nights, the warm and moist sea-air proves soothing and beneficial; but when advanced into a profuse catarrhal stage, with destruction of tissue, the sea-shore, as already mentioned, should be avoided.

So, also, active advancing tuberculosis is benefited only in sedative, moist, warm climates (Florida); while chronic and stationary cases should seek the dry, cool, exciting atmospheres (Colorado, Adirondacks). Dr. Buchanan (*Lancet*, 1868), in advancing the question whether the qualities of the soil had not a great deal to do with advancing consumption, on the fact that populations living on flat retentive soils, die of this disease far more than others who live on elevated pervious and dry soils, says, that the evidence has never been thoroughly sifted of the influence of sea-air, apart from the influences that make up climate in the places that are favorite resorts for consumptive patients.

Catarrhs of the nose, pharynx and larynx are moderated by a residence in those places where the air is not too moist.

Bronchial irritation and hyperæmia require a soft, moist, and relaxing air. Mild, non-tubercular, bronchitis is very much relieved by a sea air.

Chronic catarrhs with sub-acute inflammatory phenomena are benefited in those mountain elevations along the Pacific coast which are within the influences of the sea-air.

Dr. Meyhoffer, referring in general terms to the climatic influences of health resorts, says, that inveterate bronchial catarrhs with profuse muco-purulent secretion, dilatation of the bronchial tubes, general atony, anæmia, arrested organic metamorphosis, the presence of more or less irritation, emphysema or infiltration of the pulmonary tissue, must furnish their own indications. To this we would add, that in our own opinion such conditions could find relief at the seaside only by a sojourn at the "ocean" resorts or along the Florida coast, and would probably receive greater bene-

fit in the Blue Ridge range of the Carolinas, the Adirondacks, or Minnesota and Colorado, according to the season of the year in which relief is sought.

In relation to hay fever, Dr. Beard says, that so long as the breeze is from the sea the relief is marked, but when off shore the suffering may be as great as when inland. In a series of cases, twenty-seven found relief, of which five experienced great or complete relief; twenty-nine had no relief, and five were made worse by a sojourn at the sea-shore. In a case under my own observation, that of a lady who had been a sufferer for years from this trouble, complete relief was found for two successive seasons at the Isles of Shoals. On the third season there was a reappearance of the disease, but in a light form, while at the Islands. She did not return, thinking, possibly, that the beneficial effects had ceased.

Dr. E. T. Williams, Physician to the Sea-shore Home, writes to the *Medical Record* as follows, in regard to 'Sea-air and Infantile Diarrhœa':

1. Sea-air is not an infallible cure for the above.

2. The vast majority of cases get well, if removed early and properly fed and cared for.

3. After decided collapse and head symptoms come on, death is the rule, recovery the fortunate exception.

4. Bronchial and pulmonary complications are usually aggravated by the cold air.

5. Not a few cases are made worse by exposure in stormy weather and the cold nights of the last of August and September. At those times both fires and extra clothing are needed, and some take cold in spite of them. Indeed, it has seemed to me that the autumnal diarrhœas are chiefly caused by cold, and are unsuited for the sea-shore.

In diseases of the uterus the accompanying nervous symptoms are often relieved at the sea-shore in consequence of the improved condition of the digestive functions.

We would again call attention to the "ocean" resorts as points possessing all the advantages to be obtained at the sea-shore, and hence of benefit in the classes of diseases already mentioned. Taking all the surroundings into consideration, we believe that these are the points which should be sought by those whose diseased

conditions demand the sea-air during the summer season of our northern climate.

In regard to the Florida coast for a winter residence we would say in general terms that, bathed, as it is, by the warm waters of the surrounding sea, and under the influence of the trade-winds, which cool and purify its atmosphere, it furnishes a climate well adapted to those worn out by mental over-work and those who are weak and nervous from any cause. "The even, warm temperature of the day lulling and quieting by its soothing influence the over-heated and tired brain and nervous system," just as external and artificial heat often proves gratifying and beneficial to our exhausted physical nature, and the cool nights furnishing the conditions best adapted to woo the drowsy god, are the most valuable adjuvants in restoring health and vitality to the enfeebled bodies. Although the thermometer does not range so high or so low as at points in the north, yet we feel that the summer residence would prove somewhat trying in consequence of the long extent of warm weather, reaching from April to November, and we would advise the removal of the invalid during that season of the year to points along the shore which are further north, or up to the elevated ranges of the South Atlantic States.

In regard to pulmonary troubles, while advanced states are not benefited in a curative sense, yet the climatic conditions allowing the patient to be more frequently out of doors, during the winter season, than in our northern climate, give a degree of comfort not obtainable by the invalid confined during the winter to our heated rooms, and furnishes to him who is just entering upon the first stages of these dire diseases a fair promise of restoration to health. But the invalid, semi-invalid, and pleasure seeker, must exercise as due care in Florida as in Massachusetts, in protecting himself by suitable clothing from the cool air of the mornings and evenings.

One word in regard to the one prominent feature of seaside resorts, sea-bathing. For the seeker after recreation, or those suffering with functional troubles, and in whom a motive for exercise is as much a desideratum as the change of air, sea-bathing in moderation is invigorating and enjoyable, but the invalid, even with a fair supply of muscular power, should avoid it, and should seek instead the still-bath, of such temperature as comfort or a

physician may advise. By this means he gains the advantage to be derived from the application to the skin of the saline compounds of the water, and their possible absorption, and does not run the risk attendant upon the heat-loss which follows an immersion into the cold water of the sea.

T. M. Strong, M.D.

Mineral Springs.—The subject of mineral springs is one which the average practitioner of medicine knows very little about. The aim of this paper is to supply the deficiency in a manner, and impart at least a slight knowledge of the subject, and awaken an interest that shall lead to a more thorough investigation.

No attempt will be made to indicate the use of mineral waters according to the law of similars, it being impossible to do so. There are very few such waters homœopathically proven; however, in a general way it is best, if possible, to direct the use of those waters of the class suited to the needs of the patient, which possess constituents homœopathically suited to the case, though of course the presence in the water of so many other remedial agents will greatly modify its action.

The classification followed is that generally used, and it seems the most simple and sensible. Besides the composition of the water, the climate, elevation, temperature, society, etc., should be very carefully considered. The change of air, scene, surroundings and diet, release from home cares and burdens, are no small factors in the cure to be effected.

The authority relied upon almost entirely in the preparation of this section of the paper, is Dr. G. E. Walton's comprehensive work on the Mineral Springs of the United States and Canada.

Thermal Springs.—The virtues of the thermal bath are due to the heat of the water much more than to any special ingredients which may be contained in them. However, inasmuch as some of the water in which the bath is taken must be absorbed, after determining that a patient shall take thermal baths, an effort should be made to secure a water for the patient's use, the mineral ingredients of which shall be suitable to the disease to be cured. Never is the bath to be used in acute diseases; its use is to be confined to chronic cases alone.

Hot water as a curative agent is administered in the form of baths and douches. In the baths the water may be warm—less in heat than the temperature of the body—giving to the bather a gracious feeling of rest and calm, lessening the frequency of the pulse and respirations, exciting absorption, and secondarily acting as a restorative to the worn or diseased system; or the bath may be hot—of greater heat than the body—in which case it acts directly opposite to the above, causing primarily, excitation, and secondarily, depression. The warm bath can be taken at any time of day when the stomach is empty, but preferably in the morning, and can be indulged in from fifteen minutes to one hour, or even longer. Almost any condition of health or disease will permit of its use; but persons troubled with organic heart or lung diseases should use it carefully.

The hot bath is best taken in the morning with an empty, healthy stomach; should last from five to fifteen minutes, rarely longer; is more applicable to middle aged and old persons, rather than to the young; should be cautiously used by plethoric persons, and not at all by persons suffering from chronic heart or lung diseases, or subject to vertigo. The temperature generally ranges from 102° to 110°, Fahrenheit. The douche is so arranged that a stream of water can be thrown on any portion of the body desired. It acts as an excitant, stimulating the circulation, the nerves and the lymphatics, the intensity of its action depending on the force with which the water strikes the surface of the body, and its temperature. Persons continuing the use of the baths for a varying length of time are afflicted with an eruption on the skin and fever, which continue for several days, known as "bad strum," or bath fever. Its appearance indicates either excessive use, or a too high temperature of the water. The thermal bath is applicable to many diseases. In sub-acute or chronic rheumatism the temperature should range from 95° to 100°, Fahrenheit, ordinarily, and the bath last about fifteen minutes, which can be lengthened gradually. In chronic articular or deforming rheumatisms, the hot douche, with temperature from 106° to 120°, Fahrenheit, should be added.

Their use in syphilis excites the emunctories of the body into energetic action; old tissues are torn down, hastily thrown off, and

as speedily supplanted by new material. Thus the system is thoroughly renovated. The hot bath should be used.

In chronic cases of gout the hot baths aid in the absorption of concretions formed, assisting the action of the saline waters taken internally.

In paraplegia resulting from a purely functional derangement of the spinal cord from any cause, the thermal waters, both in the form of baths and douches, should be used. First the warm baths alone should be used until some improvement is felt, when the douche may be added, which will aid the action of the baths. The douche should be used mildly, but slight percussion being allowed.

In hemiplegia, when after a few months steady progress towards recovery a halt is made, because the absorption of the clot causing all the trouble has ceased, only a small, hardened lump remaining, the warm bath and douche in connection with the internal use of saline waters, without stimulating the nerve centres, gently excites the absorbents, and the clot is further reduced in size.

Neuralgia occurring in persons whose nerves are in an irritable state, particularly if they are in a debilitated condition, is greatly benefited by warm baths. Cases dependent upon rheumatism are more frequently cured than those resulting from other causes.

In chronic engorgement of the liver, warm baths and the hot douche are indicated.

Of female diseases benefited by the use of warm baths, metritis, leucorrhœa, amenorrhœa and dysmenorrhœa are mentioned; metritis when present in persons of rheumatic diathesis, the baths being aided by the use of saline waters; leucorrhœa, amenorrhœa and dysmenorrhœa, when there is present a plethoric condition of the system.

False anchylosis. In this, hot baths and douche both come into use; the latter being used over the affected joint and accompanied by vigorous and persistent friction.

Contraction of muscles, whether due to rheumatism, scrofula, gout, syphilis or injury, is benefited by the thermal bath of moderate temperature, accompanied by the hot douche, due consideration as to mineral constituents of water being made, according to originating cause.

Prominent hot springs are: Hot Springs, Hot Springs Co., Ark.;

Calistoga Hot Springs, Napa Co., Cal.; Paso Robles Springs, San Luis Obispo Co., Cal.; Santa Barbara Springs, Santa Barbara Co., Cal.; San Bernardino Springs, San Bernardino Co., Cal.; Idaho Springs, Clear Creek Co., Col.; Hot Springs, Bath Co., Va.

Warm Springs of note are: Warm Springs, Madison Co., N. C.; Warm Springs, Meriwether Co., Ga.; Lebanon Springs, Columbia Co., N. Y.; Warm Springs, Bath Co., Va.; Healing Springs, Bath Co., Va.

Saline Springs.—Saline waters are those in which the chief constituent is the chloride of sodium. This excess of common salt ranges all the way from a slight preponderance of this element, to a strong brine. In these waters are often found the iodide and bromide of sodium. Besides the chloride of sodium are found other chlorides; also sulphates of potassa, soda, lime, magnesia, and in some cases carbonates. Carbonic acid gas is found in many waters, and imparts an agreeable taste. They are mildly cathartic or aperient, stimulating digestion and the action of the intestines, increasing the flow of urine, mucous secretions, and bile. They also act as a stimulant to the glandular and lymphatic systems.

Brines are principally used for bathing. They act as a stimulant to the cutaneous nerves and circulation, and by reflex action favorably affect other organs. In hemiplegia, they act by facilitating the absorption of the clot, and are used with the thermal bath, as spoken of elsewhere. In dyspepsia they are useful when there is marked acidity of the stomach, with slow digestion, flatulence and hypochondriasis. They are useful in hæmorrhoids due to obstructed portal circulation and hepatic engorgement. In engorged liver the flow of bile is promoted and the intestines are made to act more energetically. The thermal bath and the hot douche over the region are useful auxiliaries. When the engorgement is due to valvular lesion of the right side of the heart, care in the use of these waters should be observed, and if the disease be far advanced they should not be used, as all mineral waters seem to aggravate serious organic heart diseases. Although not so frequently indicated for the prevention of gall-stone colic as the alkaline waters, the saline waters sometimes act when the former fail. They both tend to increase the fluidity of the bile and prevent reformation of the stones. The fatty liver found in corpulent

persons often requires these waters for its relief. They are useful in jaundice due to catarrh of the duct, or retention of bile from obstruction by gall-stone. In chronic metritis they are also indicated, especially in scrofulous subjects, unless there is a tendency towards menorrhagia, which they seem to aggravate, when the alkaline waters are to be substituted. They are indicated in amenorrhœa and dysmenorrhœa, especially in anæmic persons, particularly if iron is a constituent of the waters.

The action of saline waters in the cure of scrofula is greatly aided by the presence in many waters of bromine and iodine. The action of the waters is greatly aided by the use of strong brine baths. In chronic gout the absorption of concretions is facilitated. Saline springs are: Saint Catherine's Well, Ontario, Canada; Caledonian Spring, Ontario, Canada; Lansing Well, Ingraham Co., Mich.; Spring Lake Well, Ottawa Co., Mich.; St. Louis Artesian Well, St. Louis, Mo.; Fruit Port Well, Ottawa Co., Mich.; Saratoga Springs, Saratoga Co., N. Y.; Ballston Spa, Saratoga Co., N. Y.; Wilhoit's Soda Springs, Clackamas Co., Oregon; Charleston Artesian Well, Charleston, S. C.

Calcic Waters are those in which the salts of lime predominate, either as a sulphate (gypsum), or carbonate (limestone). They are clear and generally tasteless. They increase the urine and perspiration, possess an astringent and exsiccating action on the skin and mucous membranes, and are generally constipating. They act also as a sedative to the urinary apparatus.

Diabetes mellitus. In this disease the use of these waters is attended by a great diminution in the amount of sugar, the appetite is not so excessive, and the patient gains in strength, but as a rule the effect is merely temporary, all that is gained is palliation. By following up their use for years the course of the disease is for that time stayed, but finally its power cannot be arrested, and in spite of either alkaline or calcic waters the disease progresses. In the third stage, when pulmonary phthisis has set in, the waters are useless. The alkaline waters are more generally indicated than the calcic. The Bethesda water, of Waukesha, Wis., is most frequently used. Its chief constituent is carbonate of lime, but it also contains carbonate of soda and magnesia, thus closely allying it to the alkaline waters.

On gravel, the favorable action of calcic waters is attributed: first, to its soothing, sedative effect on the mucous lining of the bladder and urethra; second, to its power to correct the perverted condition of the constitution, thus preventing their formation. If the tendency is to the formation of the uric or oxalic acid calculus, the alkaline share the honors with the calcic, but the latter alone are useful when the gravel is phosphatic. If a stone exists, of course the indication is for its removal, and afterwards the use of these waters.

Vesical catarrh is relieved by their use when the urine is acid and irritating.

Prominent springs of this class are: Butterworth Springs, Grand Rapids, Mich.; Eaton Rapids Well, Eaton Rapids, Mich.; Leslie's Well, Leslie, Mich.; Gettysburg Springs, Gettysburg, Pa.; Clarendon Springs, Rutland Co., Vt.; Sweet Springs, Monroe Co., W. Va.; Berkeley Springs, Bath Co., Va.; Alleghany Springs, Montgomery Co., Va.; Bethesda Springs, Waukesha, Wis.

Purgative or Bitter Waters.—These waters contain as the predominating element, either the sulphate of magnesia (Epsom salts), or the sulphate of soda (Glauber's salts). They are active cathartics, for which purpose they are used almost exclusively. Their taste is bitter. They act particularly well in persons of robust habit, especially when connected with a disposition to abdominal plethora. Care should be observed in their use, as excess is likely to derange the digestive apparatus.

Prominent springs of this class are: Irvine Springs, Estill Co., Ky., which are very strongly impregnated with sulphate of magnesia. Crab Orchard Springs, Lincoln Co., Ky., containing both sulphate of soda and magnesia, the latter greatly predominating. They are principally used to produce Crab Orchard salts. Midland Well, Midland Co., Mich., containing sulphate of soda and potassa, the latter being in excess, to which it owes its purgative powers. Bedford Springs, Bedford Co., Pa., are mildly purgative, the agent being sulphate of magnesia; its action is modified by a large proportion of the carbonate of iron, which renders it useful in cases of anæmia with abdominal plethora.

John L. Ferson, M.D.

Chalybeate, Sulphur, Alkaline, and Alkaline-Saline Springs.—CHALYBEATE WATERS.—The waters of this class are distinguished by the presence of greater quantities of iron. The iron is usually present as a bi-carbonate, though the sulphate is of frequent occurrence. They are usually limpid and without odor. They have an astringent and inky taste, unless there is present, in abundance, carbonic-acid gas. Iron waters increase the appetite, promote digestion, stimulate the heart, and augment the hæmatine of the blood corpuscle.

The most useful waters of this class are those which contain a greater quantity of carbonic-acid gas, and a smaller proportion of other constituents.

Acidulous chalybeates are most effective as a remedy for anæmia and chlorosis, by augmenting the number of blood globules and their hæmatine, and by diminishing the phosphoric acid in the urine. The waters are also of service in cases of indigestion, amenorrhœa, dysmenorrhœa, hysteria, paralysis, and sterility, in which anæmia is a prominent indication.

Schooley's Mountain Spring.—This spring is situated on Schooley's Mountain, in Morris county, N. J. It is a very popular resort, on account of its easy access from the city of New York, and the beauty of the surrounding scenery. The taste of the water is strongly chalybeate, and, owing to the large quantity of carbonic-acid gas it contains, is very easily retained on the stomach.

Fry's Soda Spring.—The location of this spring is in Siskiyou county, Cal., and near the base of the famous Mount Shasta. This region is one of perpetual spring, and the surroundings are wild and picturesque. The water of this spring is as near fulfilling the requirements of a good glass of soda water as sold in the city drug store, as it is possible for a natural water to be. Indeed, if flavors were used, one could not tell the difference. Its sparkling quality excels all other waters.

Stafford Springs.—Situated in Tolland county, Conn., these springs, two in number, are important, not only on account of the large proportion of iron which they contain, but because of the scarcity of mineral springs in the State.

Cooper's Well.—This water is adapted to anæmic subjects with abdominal plethora, or constipation. It is very useful in dys-

pepsia, dropsy, and chlorosis. Perhaps the reputation it enjoys is due most to its great efficacy in chronic diarrhœa. It is the most important mineral spring in Mississippi, and enjoys with southerners, a great degree of popularity.

Beersheba Springs.—These springs are in Grundy county, Tenn., in the Cumberland Mountains, in the midst of wild and attractive scenery. It is a fine chalybeate. It is convenient of access from Nashville and Chattanooga.

Rawley Springs.—These are in Rockingham county, Va. The water from the springs is the best pure chalybeate in Virginia. It is most efficacious in chlorosis, leucorrhœa, amenorrhœa, and menorrhagia, when depending on anæmia, and in all maladies characterized by impoverished blood.

Other springs of lesser note, but which are improved, are the following: Greencastle Springs, Putnam county, Ind.; Catoosa Springs, Catoosa county, Ga.; Schuyler County Springs, Ill.; Owasso Springs, Shiawassee county, Mich.

Sulphur Waters.—Although sulphur waters are largely drank by persons in the pursuit of health, yet they are more serviceable, and certainly far more pleasant, when used in the form of baths. Their chief constituent is sulphuretted hydrogen, and to this is due the highly exciting quality of sulphur waters. The quantity of this gas varies considerably in different springs, and, to avoid undue excitement, it is necessary to allow the water to stand for a few hours before drinking, in order that a portion of the gas may escape. The waters are diaphoretic, and are so in increased proportion to the quantity of gas they contain.

Sulphur waters are especially applicable to the treatment of diseases of the skin, the herpetic variety being the easiest to cure by them. They are also beneficial in cases of chronic pharyngitis and laryngitis. The warm sulphur waters are highly beneficial in the treatment of gout and rheumatism, their diaphoretic action aiding the elimination of uric acid, although the temperature has a great deal to do with the good effects. The warm waters are also very serviceable in cases where exudations are to be absorbed, such as stiff joints and old gunshot wounds. In chronic poisoning by metals, sulphur waters favor the elimination of the poison. Engorgements of the liver, abdominal plethora, and hæmorrhoids

are very favorably influenced by saline-sulphur waters. In the treatment of secondary and tertiary syphilis we find in the sulphur waters a very useful adjunct. Sulphur waters are either hot or cold, the latter division being the most frequently met with.

Cold Sulphur Springs.—Alpena Well, Mich., contains water which is abundantly supplied with sulphuretted hydrogen gas. An additional inducement is the coolness of the days and nights of summer, which characterize Alpena.

Red Sulphur Springs.—These are very valuable, and are beautifully situated on Indian Creek, at the edge of a mountain-enclosed plain. They are in Monroe county, W. Va. The action of this water is decidedly sedative. A tumblerful at bedtime will be found a fair hypnotic. It will lower a rapid pulse and stop hæmorrhage from the lungs. It allays irritation of the mucous membrane of the lungs, diminishing expectoration. It also acts on the intestines and kidneys. In small quantities it is cathartic, in larger quantities diuretic. The diseases in the treatment of which these waters surpass all other known waters, are chronic bronchitis, chronic pharyngitis, and chronic laryngitis. It gives temporary relief in phthisis pulmonalis of the chronic form.

White Sulphur Springs.—These springs, situated in Greenbrier county, W. Va., are much resorted to by the invalid portion of the community. The diseases to which the waters are applicable are, engorgements of the liver, herpetic skin diseases, chronic poisoning by metals, catarrh of the bladder, and gravel. In dyspepsias and jaundice due to congestion of the liver, they are an unfailing remedy. They also relieve dyspepsias associated with obstinate constipation. These springs are the most fashionable resort in Virginia.

Green Cove Springs.—These springs are located in Clay county, Fla., on the St. John's river. They are very popular in the winter, on account of the pleasant surroundings and the mildness of the climate. The flow of water is abundant, and swimming baths are easily obtainable.

French Lick Springs.—Situated in Orange county, Ind., in the midst of a fine country abounding in all that is calculated to make a sportsman happy, are the French Lick Springs. They are useful in all diseases to which sulphur waters are applicable, and, on

account of the salines contained, especially to those associated with engorgements of the liver and abdominal viscera.

The following are springs similar to the foregoing, but do not have the popular patronage to so great a degree: Cold White Sulphur Springs, Rockbridge county, Va.; Montgomery White Sulphur Springs, Shenandoah county, Va.; Seven Fountains, or Burner's Springs, Shenandoah county, Va.; Blue Sulphur Springs, Greenbrier county, W. Va.; Sharon Springs, Schoharie county, N. Y.; Richfield and Cherry Valley Springs, Otsego county, N. Y.; Avon Springs, Livingston county, N. Y.; Columbia Springs, Columbia county, N. Y.; Bedford Springs, Trimble county, Ky.; Esculapia Springs, Lewis county, Ky.; Fox Springs, Fleming county, Ky.; White Sulphur and Tar Springs, Breckenridge county, Ky.; De Soto Springs, La.; Red Sulphur Springs, Walker county, Ga.

Thermal Sulphur Springs.—The Calistoga Hot Springs, Napa county, Cal., are about sixty in number, and their temperature varies from 100° to 195° Fahr. The waters are almost exclusively used for bathing, and every convenience for this purpose can be found here. They will be found useful in the treatment of gout, paralysis, rheumatism, herpetic diseases of the skin, chronic lead poisoning, and tertiary syphilis. An interesting feature of this resort is the moor or mineral mud baths.

The Geysers, Sonoma county, Cal., are almost one hundred in number, and are among the most interesting natural curiosities in the world. They are used for the same diseases as the Calistoga Springs.

Paso Robles Hot Springs.—These are situated in San Luis Obispo county, Cal. The waters contain such combinations as make them peculiarly suited to the treatment of cases of gout, chronic rheumatism, herpetic skin diseases, and in contractions of the joints and old gunshot wounds. It is a thermal saline-sulphur water.

Warm Springs.—These springs, situated in Bath county, Va., are of undoubted value in a great variety of diseases. The action of the waters is sedative. While in the bath one has a sense of voluptuous repose, and the body has a velvety smoothness when the hand is passed over the surface. The diseases which are favorably influenced by the waters are, chronic and sub-acute

rheumatism, gout, neuralgia, congestive amenorrhœa and dysmenorrhœa, and they are also useful in nephritic and calculous diseases. The surroundings of the springs are very attractive.

The following springs also belong to this class: Santa Barbara Hot Sulphur Springs, San Diego county, Cal.; Agua Caliente Spring, San Diego county, Cal.; Louisville Artesian Well, Ky.; Middle Park Hot Sulphur Springs, Summit county, Col.; Salt Lake Hot Springs, Salt Lake City, Utah; Warm Springs, Meriwether county, Ga.; The Geysers, or Warm Sulphur Springs, near Sitka, Alaska.

Of saline-sulphur waters, applicable especially in herpetic diseases of the skin, the most noted are the following: West Baden Springs, Orange county, Ind.; Indian Springs, Martin county, Ind.; Lodi Artesian Well, Wabash county, Ind.; Lafayette Well, Tippecanoe county, Ind.; the Upper and Lower Blue Lick Springs, Nicholas county, Ky.; Big Bone Springs, Boone county, Ky.; Olympian Springs, Bath county, Ky.; Massena Springs, St. Lawrence county, N. Y.; Salt Sulphur Springs, Monroe county, Va.

Of calcic-sulphur waters, prescribed for cases which would otherwise require sulphur waters, but which are complicated by disease of the bladder, the principal are: Chittenango Springs, Madison county, N. Y.; Clifton Springs, Ontario county, N. Y.; Yellow Sulphur Springs, Montgomery county, Va.

Alkaline Waters.—The waters of alkaline springs increase, by their excess of carbonate of soda, the alkalinity and fluidity of the blood. Their action is diuretic, and, in large quantities, constipating, and they are efficacious in all affections of the kidneys, in catarrhs, in affections of the stomach, bladder, and abdomen, and in indigestion, jaundice, gout, and diabetes.

Sheldon and Missisquoi Springs.—These springs are situated in Franklin county, Vt. They are surrounded by delightful scenery, and the atmosphere is cool and bracing. Their chief interest, however, lies in the fact that they exercise a marked palliative effect over cancer. Although no cures are reported, yet there are many cases on record which have been so far relieved that patients have again found their lives worth living. The external evidences of the disease almost, if not quite disappear, and the health of the patient is improved in every respect. Intractable ulcers

are also cured or greatly benefited by a course of the waters. They act quickly, if they act at all.

The following are alkaline springs: Bladon Springs, Choctaw county, Ala.; California Seltzer Springs, Mendocino county, Cal.; Perry Springs, Pike county, Ill.; Versailles Springs, Brown county, Ill.; St. Louis Springs, Gratiot county, Mich.; Weldon Springs, St. Albans, Vt.

Alkaline-Saline Waters.—The waters of this class are most useful in the treatment of diseases of the liver, and abdominal plethora, obesity, gout and calculus. In dyspepsia the mild alkaline-saline waters are of very great benefit. These waters are to be prescribed in preference to the purely alkaline when catharsis is the chief object to be attained. The most noted waters are: Lansing Well, Ingham county, Mich.; Ballston Spa, Saratoga county, N. Y.; the Albany Artesian Well, N. Y.; Wilhoit's Soda Spring, Clackamas county, Or.; Idaho Hot Springs, Clear Creek county, Col.; Charleston Artesian Well, S. C.; Des Chutes Hot Springs, Wasco county, Or.

John Cooper, M.D.

SEWAGE AND VENTILATION.

BY J. B. WOOD, M.D., WEST CHESTER.

Under the above caption it is not intended to fully exhaust the subject of sewage and ventilation, but merely to allude to such portions of these subjects as may strike the mind of the casual and superficial observer.

The sewage of cities and towns is now justly claiming the attention of boards of health and others upon whose wise direction the lives and health of so many depend.

The subject of the proper ventilation of our dwellings has also received but little attention. Who amongst us cannot call to mind where whole families have fallen victims to disease caused by bad sewage or ventilation, or both, where the same has been charged to the workings of a mysterious providence, rather than to our want of knowledge of the proper means to prevent and avert such disasters?

Physicians are too apt to rely too much upon medicine and too little upon the surroundings of the patient. If the causes which produced the disease still surround the patient, how futile will be our efforts to cure. All will agree that upon this in a great measure depends the welfare of the sick. Let us select, if there be such an one, a light, well ventilated room with cheerful surroundings; by which I mean, amongst other things, an absence of long faces, doleful countenances, and that whispering in the sick room that is always annoying and detrimental to the patient. If you have anything to say, speak it out; but if it be of such a nature that you think the patient ought not to hear it, reserve it for another part of the house beyond the hearing of the sick.

The room itself should have two windows, and the bed be so placed that the room can be well aired without the draft passing directly over the patient. It should have an old-fashioned fire-place, or a flue from the floor to the roof of the house, which will answer the same purpose. If it should be cool enough for fire, and there should be a fire-place in the room, a little wood fire on the hearth is the *ne plus ultra*, but if that is absent a wood fire in a stove is the next best thing we can do. In the absence of a fire-place, the sick room should have a flue extending from the floor to above the roof of the house, as before stated, so as to create a good draft, and all offensive matter should be immediately removed from the room. In addition to this, nothing should be omitted as regards cleanliness about the house; all decaying vegetable matter should be removed from the cellar without delay. The bed linen should be changed daily. The physician should always bring to his aid all those auxiliaries which will be suggested by good common sense.

No rule can be laid down to govern all cases. Where sewers are needed, we must be governed in their construction by the character of the ground over which they are to be erected. It is too much to say that they should be discharged at any particular point of the compass, except where the ground should incline in that direction. The town in which I reside cannot be properly sewered without striking almost all points of the compass. What most is needed is that sufficient fall should exist to cause the sewer to drain quickly, and sufficient flow of water to cleanse it of all impurities.

In dry weather frequent slushing out with water will be necessary, unless there should be a regular flow of water through it.

In the construction of sewers, brick is the best as well as the cheapest material, the cost per foot (lineal measure) being about $1.25 for an arch of 2 feet 6 inches in diameter, and $1.50 for 3 feet arch. All sewers should have traps at the inlets, so that all smell from them may be got rid of by a communication with the conductors or flues of dwellings, if within reasonable distance, so that it may be discharged into the atmosphere beyond the reach of passers by on the street.

I suppose sewer traps are about as perfect now as can well be in point of construction, but traps are of themselves a source of contagion unless attended to and frequently cleansed, as they necessarily contain water and other material which becomes stagnant by standing, unless removed every few days.

Dr. Jones: I will speak, not that I have given the subject any particular attention, but it came to my notice in another way. In a paper I presented to the Bureau of Clinical Medicine at Easton, on the local causes of diphtheria, I wished to prove that the cause of most cases of diphtheria was defective sewers. It is, unfortunately, the fact that water pipes are emptied into sewers or closed cisterns and wells, where gases are generated that find their way back into the houses. In Boston it has been the subject of investigation, and in every case where diphtheria has occurred, defective sewers have been found. Why is it that we have no other means of getting rid of refuse matter except by pent up sewers? Gutters would be preferable. There would be a little smell but there would be no injurious results; besides, these gutters might be flooded.

Dr. Betts: I cannot see but that the system of sewers is perhaps the best means we have at the present time of getting rid of offensive matter. I have thought that above ground passage ways are objectionable. I am well aware that sewers, as at present constructed, are defective. The traps which Dr. Wood mentions are so often inefficient that they need more attention than they get. During drouth the water in the receptacles evaporates and there is a free outlet for the gases. The way to remedy this defect is to

have an abundant water supply, but a super-abundance of water is not to be had in every place where sewers are used. It is the only efficient way of getting rid of these materials. Dr. Wood suggests another important thought, and that is the ventilation of sewers through conduits leading from the sewers to the roofs of dwelling houses. If it was made obligatory to have the drain pipe ventilated, so that there should be a free circulation through the pipes to the roofs of the houses, the gases would escape to the upper stratum of air. The only way to render a water closet and drain pipe efficient, is to have a pipe of nearly the same calibre as the drain pipe to run up through the different stories to the roof for the purpose of ventilation. Every time water is let into these drain pipes a certain amount of air is displaced and escapes into all parts of the house, unless there is a free exit to the external atmosphere. If from the trap there is a pipe running up to the roof there is no danger but that the current of gas would go through all the time. If it was made obligatory upon every builder who puts in a drain pipe to have it thoroughly ventilated there would be little trouble.

Dr. A. R. Thomas: I would like to say a few words, inasmuch as I have been led to entertain different views in regard to sewers being the cause of so many serious diseases, diphtheria, typhoid fever, and others. The result of my reflections upon this matter leads me to think that it has been made something of a hobby, and while it has been one of the sources, it is not so common a source as the profession thinks. If such were the case, it would seem almost perilous to go into a sewer, and yet there are men who spend their lives in sewers. I have read in the London *Lancet* that the men who work in these sewers constitute one of the healthiest classes. If this is a fact, it goes against the accepted theory that sewers are the sources of so much disease. Look around among the families of Philadelphia where diphtheria and typhoid fever prevail, and see if we have a greater number in houses with imperfect drainage than in others. In conversation with a friend, he related the case of a gentleman who built a house and spent large sums of money to obtain the most complete system of drainage, and who had been in his house but a short time when his child took diphtheria. In my own personal experience, I really cannot say that I have had any more cases where there was

no drainage, or where the privies were in the yards, than in the best quarters. Understand, I do not think sewers and defective drainage are never the causes of disease, but I do not think they are the universal cause. Medical men have theories, sometimes these, sometimes others. I think this is a hobby of medical men, who, not knowing what else to charge these affections to, attribute them to bad drainage. In the country they are subject to these diseases. Several years ago I was called to consult with Dr. Trites, near Manayunk, where an epidemic was prevailing. In that situation you could see Philadelphia and Norristown. There was no bad drainage there; the house was high and was naturally drained. I did not examine the plumbing. The house was modern and carefully built, and if any place is free this should have been. Defective sewerage is one cause, but there are many others; there are peculiar poisons developed of which we know nothing.

Dr. Dudley: I think that there is a great deal of force in Dr. Thomas' remarks in reference to hobbies, especially that of sewerage. I believe it will be demonstrated that sewer gases produce disease by entering the digestive canal instead of the respiratory apparatus. It is a question whether organic germs are not absorbed in some articles of diet. I do not know whether we have any references upon this point or not. I want to call attention to the use of brick in the construction of sewers. Bricks absorb water like sponges; it percolates these structures and goes into the surrounding soil, making a mass of stench and filth. They should be made water tight and air tight, whether in the earth or in the house. In late years, this has been decided by men who make sanitary science a study. In Philadelphia, when a sewer breaks, the earth around it is impregnated with organic matter, but it cannot do the same harm in a city like Philadelphia where the water supply is great, as where there are only pumps to depend upon. In places where wells are used the wells might become contaminated, and sewers there should be water tight.

Dr. J. C. Guernsey: I think pipes should be carried up as far as possible, and a jet of gas allowed to burn in the pipe to facilitate the rise of noxious gases. I have seen an S trap in which there is a wide but flat expansion which is to remain full of water

all the time. The water in the bend cannot be displaced or blown out.

Dr. Wm. J. Guernsey: There should be some draft in these pipes. We had a three inch pipe attached to an S trap carried to the flue of the kitchen range, and by this means secured good ventilation.

Dr. Betts: Fires go out and then there is no draft.

Dr. McClelland spoke of the London method, and said that sewage was conducted in long gutters to a certain distance and then pumped into reservoirs, which process was repeated several times before it reached its destination.

Dr. Toothaker thought that while forty years ago, when we had no deodorizers, it would be difficult to carry it away without having privy wells, etc.; but now, since the idea of deodorizing everything had become so prevalent, he did not see why everything from the house that is offensive should not be carried out of the city every morning.

Dr. Detwiller: I agree with Dr. Thomas. Scarlet fever, diphtheria, and several other diseases are called filth diseases. I do not believe it. There are no filth diseases. We have butchers, night scavengers, etc., working in decomposing animal matter all the time, and these people seldom have these diseases. As far as drainage is concerned, there are many other causes which are apt to be neglected by attributing these diseases to sewer gases.

Dr. Morgan: There is such a thing as taking up an idea and riding it as a hobby. During the Exposition of 1876, typhoid fever was epidemic, but only those were afflicted who had been to seaside resorts. I have spent part of the summer at Ocean Grove, and am acquainted with the system of sewerage in use there. An editorial in the *Asbury Park Journal* says there are to be no more cesspools, but connections must be established behind the houses to drains which communicate with the ocean at low tide, which will allow refuse matter to go out with the tide. Ocean Grove and Asbury Park are alive to this subject, and gentlemen who send their patients there can do so with safety.

Dr. Jones believed diphtheria could be produced by germs generated in gases from old wells, and cited a case in point. A

plumber was employed to open up a covered well into which the discharges from a house in which diphtheria had been prevailing emptied, and in a few days he was attacked with diphtheria.

Dr. Morgan: Dr. Jones gives me a new thought. Typhoid fever fœces produce typhoid fever. When the family had diphtheria several days, the discharges, impregnated with diphtheria germs, emptied into the well, caused the plumber to take diphtheria.

ON THE USE OF DISINFECTANTS AND ANTISEPTICS IN THE MANAGEMENT OF CONTAGIOUS AND OTHER DISEASES.

BY A. R. THOMAS, M.D., PHILADELPHIA.

The generally received theory of the origin of contagious diseases from some obscure poison in the atmosphere, either gaseous in its nature, or from some minute animal or vegetable germs, gives increased importance to the subject of the employment of disinfection in the treatment of these diseases. It is not only the acknowledged contagious and infectious diseases, however, that may come within the range of disinfective treatment, but possibly many epidemics, as of influenza, diarrhœa, etc., may have a similar origin, and when thoroughly understood, be capable of more ready control by the employment of similar measures. He who might attempt the treatment of the effects of certain parasitic infection, without taking any measures for destroying the parasite itself, would subject himself to the charge, at least, of great inconsistency; while he would, no doubt, find himself baffled in the accomplishment of his purpose. So, also, in the treatment of contagious diseases, a neglect to resort to such disinfective measures as may be necessary for the comfort of the patient, or the protection of others, would no less expose the physician to the charge of inconsistency, if not of culpability.

The claim that has been made, that the action of homœopathic remedies is interfered with, or wholly destroyed, by any active or odorous substances in contact with, or in the immediate presence of the sick, has never, in our judgment, been well sustained,

either by arguments or facts. On the other hand, there is abundance of evidence that the action of remedies is not easily, or often interrupted, either by the ingestion of articles of a medicinal nature in a crude form, or by the presence, or even external application of others, possessing decided chemical power, or sensible olfactive properties. Hence, with our present knowledge of contagion and contagious diseases, in the treatment of these affections, it becomes the duty of the physician to employ every known means for *preventing the spread* of the disease, as well as for *curing* his patient.

The objects had in view in the employment of disinfectants or antiseptics, are, first, that of destroying the various infective matters that may be the means of disseminating disease; and second, that of removing offensive odors, that may or may not contain the germs of disease, or be prejudicial to the health or comfort of the patient or of those around him.

As already intimated, the sources of contagious diseases may be either poisonous gases or minute animal or vegetable germs. Any substance, therefore, possessing the power of destroying either of these, may be considered as a disinfectant. A large number may be included in the list, but no one article, however, will be found to possess every quality necessary for a universal disinfectant.

List of Disinfectants.—Disinfectants are capable of being divided into three classes: 1st, physical agents, heat and cold; 2d, volatile or vaporizable substances which attack impurities or disease germs in the air; 3d, chemical elements, which act on the diseased body, or the infectious discharges themselves. I shall consider them in the above order.

Dry Heat, at a temperature of 220° to 250°, F.—It is well known that the above temperature will most effectually destroy all organic germs; hence it becomes a powerful disinfectant, adapted, however, only to a limited use. It may be employed for the disinfection of clothing, bedding, etc., but as large ovens will be required for the employment of this method, it cannot be generally made use of. In some of the large cities of England, the Boards of Health provide large chambers of solid brick work, capable of being heated to the required degree.

The same should he provided in the large cities of our own country.

Boiling Temperature of Water.—Articles of clothing, bedding, etc., may undoubtedly be thoroughly disinfected by careful boiling. If soda or carbolic acid be added to the water, the effectiveness of the process will be increased. This method presents certain advantages over the former, being probably quite as effective, and for most articles, more convenient.

Cold.—It is well known that a temperature below the freezing point will destroy many minute organisms, but probably, by no means all. Hence, cold can be employed only for arresting or delaying putrefactive changes, and is of moderate value as a disinfectant.

Chlorine.—This is one of the most powerful deodorents and disinfectants known. The most offensive odors cannot long exist in an atmosphere containing free chlorine, while it is highly destructive to all minute vegetable or animal life, or even to the life of higher animals when inhaled in a concentrated form. When continuously inhaled by healthy persons, even in a dilute form, it acts as an irritant to the lungs. It is claimed that its constant use in the hospitals of Paris at one time, induced phthisis with many of the patients. For use in the sick room, chlorine is best obtained from chloride of lime. Placed upon the floor in shallow, open dishes, there will be a sufficiently rapid disengagement of the gas to answer the purposes of the sick room. For a more rapid evolution of the gas, any mineral acid may be added in small quantities. The irritating effects of this gas upon the lungs, with its own disagreeable odor, detracts somewhat from its usefulness in the sick room. For unoccupied rooms, passages, water closets, drains, etc., it is admirably adapted.

Sulphurous Acid.—This substance, like chlorine, possesses powerful disinfecting properties, and being also a gas, its power of diffusing itself into every crack and crevice, renders it admirably adapted to the purpose of fumigating rooms, holds of vessels, or any place that may be tightly closed. It is most readily produced by burning sulphur or wet brimstone in the room to be disinfected, as will be directed further on.

Carbolic Acid.—This is generally admitted to be one of the

best substances for direct application, in solution, to the part or object to be disinfected. Although it is possible, by means of the spray, to more or less completely fill the atmosphere of a room with a solution of this substance, yet it can never be made to take the place fully of the gaseous disinfectants, chlorine and sulphurous acid, for the purposes for which these are usually employed. Solutions of various degrees of strength—one part in 20, 40, 60 of water — are admirably adapted to disinfecting such articles of bedding or clothing, as may be immersed or boiled in the same; for washing furniture, floors, etc., and for the disinfection of instruments, sponges, etc., and for direct application to foul ulcers, suppurating wounds and general personal disinfection.

Potassa Permanganate.—This substance forms a very good disinfectant for use by direct application, in solution of one to ten grains to one ounce of water. It may be used for similar purposes as the carbolic acid, and has an advantage over that of being without odor. Its powerful coloring properties, however, may be an objection where white goods are to be disinfected.

Zinc Sulphate.—In this substance we have one of the most powerful antiseptics and disinfectants known. Capable of thoroughly arresting decomposition of animal tissues, it is admirably adapted for the preservation of bodies for the dissecting room. A pint of the saturated solution in a gallon of water, injected into the arteries, will preserve a body for an indefinite period, even in warm weather. Acting only by direct contact, its caustic and corroding properties renders it less useful for purposes of personal disinfection than some others. For drains, privies, the excreta of patients suffering from infectious diseases, it is one of the best disinfectants in use.

Chloralum.—This substance, which is an impure solution of chloride of aluminum, is a powerful disinfectant, and possesses the advantages of being odorless, non-poisonous and cheap. It may be used for surgical wounds, offensive suppurations, etc. It may be diluted with four to eight times its bulk of water.

Iron Sulphate.—From its cheapness and valuable properties, this substance becomes one of the best articles for water closets, urinals, drains, etc. It may be used in bulk, or by means of a saturated solution.

CHARCOAL.—As a deodorizer, this is one of the best known substances, when it may be brought into direct contact with the part or substance giving off the fetor. Finely or coarsely pulverized, according to the use to which it is put, it may be used dry when thrown upon masses of decaying vegetable or animal matter, or made into a poultice and applied to gangrenous or other offensive ulcers.

QUICK-LIME AND DRY EARTH.—These articles are never to be forgotten when large masses of decomposing matter are to be disinfected. They should be used freely, and renewed from time to time. Street dust will often afford a convenient form of dry earth, especially in the country. Privies are perhaps as well disinfected by these substances as any others.

Disinfecting Compounds.—Several disinfecting compounds have been devised and placed in the market, some of which are known and used in this country, others only abroad. Among the more important may be mentioned:

LABARRAQUE'S SOLUTION.—This preparation, found in every drug store, consists of aqueous solution of chlorinated soda, produced by the action of a solution of chlorinated lime upon one of carbonate of soda. It has been found most useful for disinfecting in a small way in the sick room, and for general local disinfection. Diluted with eight to twelve parts of water it may be used as a gargle in offensive ulcerations of the throat, and as a vaginal injection diluted with fifteen to thirty parts of water. It may be sprinkled over the bed or about the room, and cloths saturated with dilutions of various strengths, poured directly upon offensive sloughing parts.

BURNETT'S DISINFECTING LIQUID is nothing but a saturated solution of zinc in hydrochloric acid; or, in other words, it is the chloride of zinc before described.

CONDY'S DISINFECTING FLUID is but a solution of the alkaline manganates and permanganates, and possesses no advantages over other disinfectants.

BAYARD'S DISINFECTANT consists of a mixture of sulphate of iron, dry earth, lime and coal tar. As a bulky disinfectant for privies, etc., it has been found very useful.

SIREL'S DISINFECTING COMPOUNDS are two in number. No.

1: sulphate of lime, 53 pounds; sulphate of iron, 40 pounds; sulphate of zinc, 7 pounds; charcoal, 2 pounds. No. 2: sulphate of iron, 20 parts; sulphate of zinc, 10 parts; washed tan bark (in powder), 4 parts; coal tar, 1 part. Make into balls. These may be used to advantage in many cases.

Carbolic Soap.—This compound may be found generally in the market, and there can be no question of its usefulness for disinfecting the hands, for washing infected clothing, furniture, etc., or for use in urinals. This article should be in constant use while any contagious disease is present in a family.

Platt's Chlorides.—This is a new preparation recently introduced, and is said to be a saturated solution of the chlorides of zinc, lead, calcium, aluminium, magnesium, and potassium. It is an odorless solution, and is said to possess wonderful disinfecting, deodorizing and antiseptic properties. For general use in the sick room it may be diluted one part to ten of water, and sprinkled freely over the bed, carpet or floor. Cloths may also be wet in the solution and suspended in the room. This article would appear to possess every quality essential for a universal disinfectant, but it is doubtful if, while more troublesome to prepare, they are any better than ordinary disinfectants, (carbolic soap, etc.)

While the list of articles capable of being employed as disinfectants has by no means been exhausted in this enumeration, yet the more important substances have been noticed, and probably a sufficient number.

Objects Susceptible of Disinfection.—It being fairly presumable that the germs of contagious diseases may more or less pervade the atmosphere of the sick room, and attach themselves to the various objects therein—furniture, walls, clothing, etc.—all of these should be subjected to the process of disinfection.

Atmosphere of Sick Rooms.—Disinfection of the sick room should consist, first, in a partial disinfection while occupied, and second, in a thorough disinfection after the room is vacated. The former may be best accomplished by thorough ventilation, occasional wiping up of the floor with carbolized water (carpets should always be removed in cases of small-pox or scarlet fever) and sprinkling the bed with the same, or with diluted chloralum, or Labarraque's solution. For thorough disinfection of a room

it must be vacated; all metallic articles, including pictures with gilt frames, removed; doors and windows carefully closed and made as tight as possible. Clothing or bedding to be disinfected at the same time, should be spread upon chairs, etc., in such a manner as to expose all parts as much as possible. Sulphurous acid fumes should now be generated in the room in the following manner: Place one to two pounds—according to the size of the room—of roll brimstone (to be ignited) in an open iron or tin vessel on the floor in the middle of the room on bricks. The room should remain tightly closed for at least twelve hours. It may then be opened and thoroughly aired. To complete the work, the furniture and floor may be washed in carbolized water (one part to forty or sixty of water), the ceilings and walls white-washed or newly papered, and the wood work receive a coat of paint. A room and its contents thus treated may be considered as thoroughly and safely disinfected.

Clothing.—All bedding, with the exception of mattresses, pillows and feather beds, as well as the underclothing of the patient, are best disinfected by thorough boiling in soda or carbolized water. Rags badly soiled with discharges, had better be burned. Mattresses, feather beds and pillows can be thoroughly disinfected only by removal of contents and picking the same, while the ticks are boiled. A partial disinfection may be secured by carefully sponging the seams, about the tufts, and the surface generally, with strong carbolized water (one part to twenty of water). In bad cases, in the absence of facilities for subjecting bedding to high heat, it had better be burned at once.

Privies, Cesspools, etc., may be best disinfected by the free use of dry earth, quick-lime, or sulphate of iron in bulk or strong solution. These should be frequently renewed. In water closets of course only liquid or soluble disinfectants can be used. Frequent flushing with water should be employed, and an occasional handful of sulphate of iron thrown into the basin. This, slowly dissolving, thoroughly disinfects. The same, or carbolic soap, may be placed in urinals. The new disinfectant, Platt's chlorides, should be an excellent article for all of these purposes.

Diseases in which Disinfection should be Employed.—Small-Pox.—From the highly infectious character of this much

dreaded disease, in the treatment of every case—even the most mild ones—every precaution should be employed for preventing the spread of the disease. The most important of these measures will relate to the use of disinfectants. This may be most effectively accomplished by the direct application of the disinfectants to the body and to the various articles and objects in the room. It is generally conceded that gaseous disinfectants in this disease are of little use. The body of the patient should be well anointed from time to time with carbolized oil (one part to twenty of oil), or bathed in diluted chloralum, or Platt's chlorides (one to ten or twenty). All rags used about the patient should be burned. The mattress should be completely covered with a rubber cloth, with the sheet over this. Sheets, pillow cases and patient's clothing, should be frequently changed. A bucket or tub, containing strong carbolized water or some other disinfectant, should be at hand, into which all clothing should be placed before removal from the room. The physician or nurse should wash the hands with carbolic soap after every occasion for touching the patient. The "chamber" should contain at all times a small quantity of some disinfectant, and all passages are more safely disposed of by burial than in any other way. If thrown into water closets or privies, care should be taken to thoroughly and frequently disinfect these. Upon the close of a case of small-pox, whether by death or recovery, the room and its contents should be disinfected as before directed.

Diphtheria.—The contagious nature of this disease calls for the use of disinfectants in the treatment of every case. While we have no positive knowledge of the source of this disease, and thus are unable to control its origin, we may do much for preventing the spread of the disease by a judicious use of disinfectants. The air of the room should be to a degree disinfected by some of the volatile or vaporizable disinfectants. The expectoration and excreta should be carefully disinfected and frequently removed. The mouth and throat should be frequently rinsed with alcohol, solution of potassa permanganate, or Platt's chlorides. At the close of a case the room should receive the same treatment as in small-pox.

Scarlet Fever.—In the management of this disease, in ad-

dition to the measures employed in diphtheria, the surface of the body should be occasionally bathed with some disinfecting fluid, Platt's chlorides probably being equal to any (one part to ten or fifteen of water). Again, as the epithelial scales given off during desquamation are undoubtedly capable of disseminating the disease, all large patches should be carefully burned, and the dissemination of small particles by floating in the atmosphere prevented by greasing the surface of the body generally with carbolized sweet oil. After a case of malignant scarlet fever, the room, bedding, etc., should be disinfected with the same care as in small-pox.

Dysentery.—In this disease, as in all others, great attention should be given to preserving the cleanliness of the patient and bedding, and to keeping the atmosphere of the room pure by thorough ventilation, while weak carbolized water or Platt's chlorides should be sprinkled about the room, and all passages disinfected in the chamber and removed from the room at once. If thrown into a privy or water closet, these should also be occasionally disinfected by some of the methods before suggested.

Fevers—Typhoid, Typhus and Yellow Fever.—In the treatment of all of these fevers pure air and free ventilation are a *sine qua non.* The infective matters ars thus diluted, and much less likely to influence others. Inasmuch, however, as the discharges from the bowels probably are the great source of the contagion, these should always be carefully and thoroughly disinfected, the bedding and underclothing of the patient daily changed and immediately thrown into a solution of carbolic acid or some other disinfectant, the bed and room sprinkled with Platt's chlorides, and particular care given to the frequent disinfection of the water closet or privy into which the passages may be thrown.

Cancer, Gangrene, etc.—He who should attempt the management of these, or other diseases accompanied with offensive discharges, without an intelligent use of disinfectants, would fail in half his duty as a physician. The comfort of the patient, as well as of those around, demands a careful employment of these agents: charcoal poultices, cloths wet in carbolized water, or Platt's chlorides, and placed over the diseased part, or vaginal injections in offensive uterine discharges, will overcome the fetor to a great

degree, and in many cases render life fairly comfortable, which under other circumstances might be quite intolerable.

In the domain of surgery the employment of antiseptics by the methods of Lister has resulted in greatly increased safety in many of the major operations, while its use in puerperal cases promises scarcely less important results.

Dr. Detwiller: I would ask if any of the members have had any experience with a disinfecting compound called Girondin? It is a wonderful article. It is a bluish liquid, entirely odorless.

Dr. W. J. Martin: I have had some experience with Girondin. I had a case in which nothing would overcome the offensive odor. Girondin was obtained, but failed also. It does not suit in all cases, but in most cases I believe it would have a good effect; but this time, although we used it freely, it was ineffectual.

Dr. Detwiller: I had a case of offensive gangrene. Bromochloralum did not remove the smell, but Girondin did remove it quickly. Cesspools also can be deodorized by it. I also call attention to quick-lime and dry earth. In order to reach the room of a patient on whom I had operated for strangulated hernia, I had to pass through a hall in which the odor from an adjacent cesspool was overpowering. I directed that a bushel of lime should be thrown into the pool, to be repeated every time the smell appeared. I would also recommend the use of dry earth in mortification. In one case that I had I applied dried garden earth, and the horrible odor that had previously been present was entirely removed.

Dr. Morgan: During three years of army life, I observed the different effects of camping grounds. No matter what kind of camping ground you get, if the men lie around without exercise they get sick. An army encamping in a wood may be said to be in a sealed atmosphere, the currents of air circulating around the wood prevent the escape of the bad air, rendered impure by the presence of so large a body of men. I observed that the diseases of soldiers were more rife in timber land than where the ground was clear and the air free to carry off all emanations. In Charleston, where an epidemic of disease prevailed, a number of trees in

the city were cut down and the epidemic was suppressed. A tree, the Pride of China, is deleterious.

Dr. Betts: This subject has another side to it; that is, that dwellings located high up on the tops of hills are not always the healthiest. Dr. Morgan refers to the influence of woods upon camping grounds. If the wood is situated in a valley, persons removing to the tops of hills after having lived in malarious districts at the foot, do not always escape infection. Poisons are sometimes wafted in currents of air, and a house built subject to such currents is as unhealthy as when in the valley. It is a mistake to suppose that a house situated on the highest elevation is the most healthy. Take a house situated in a town like this and it is likely to be affected by the various gases, because the tendency of gas is upward.

Dr. Parsons: Meadville is located upon French creek, and the only cases of intermittent and typhoid fevers we have had have occurred upon the hillside back from the valley. This can be accounted for in the way Prof. Betts has mentioned.

AGRICULTURE IN ITS RELATION TO HEALTH.

BY PEMBERTON DUDLEY, M.D., PHILADELPHIA.

To the physician who has practiced his profession both in the city and in the country, the prevalent notion that the farmer's occupation is a pre-eminently wholesome one, seems a pure delusion. Unfavorable to health as certain occupations carried on in large cities may be, it is doubtful if many of them present a greater variety of hurtful conditions and circumstances than that of the toiling agriculturist. The country district enjoys a reputation for health, it is true, but its salubrity is frequently more than compensated by the untoward influences incident to occupation or to the too prevalent ignorance or indifference to sanitary requirements.

There can be little doubt that in many of our rural districts there is more zymotic disease of certain kinds at least, than in our

large cities in proportion to population. The average country doctor sees as many cases of typhoid fever in a single season as does his brother who practices in the city, though it is unreasonable to suppose that he can have as large a practice in the aggregate. In the writer's opinion, based upon observations extending over a number of years, the proportion of typhoid cases to the total population in the immediate neighborhood of Philadelphia is more than double that of the city itself. We find also that scarlatina, diphtheria and other zymotic affections prevail to an alarming extent in sparsely settled districts, notwithstanding the boasted healthfulness of the country atmosphere, and the superior facilities for securing isolation.

When we consider all the conditions of life as they exist among our agriculturists, it is surprising not that sickness prevails among them, but that larger numbers of them do not succumb to its ravages. The long continued exposures to intense cold or to intense heat in the open fields, the carelessness he so frequently exhibits in adapting his clothing to the necessities of the season or of the hour, his liability to exposure to drenching rains with perhaps a long delay in, or an impossibility of divesting himself of the wet clothing, the straining and exhausting physical labor, continued sometimes for hours at a time and under a broiling sun, the malarial atmosphere of his marshes and meadows, and the poisonous exhalations from decomposing animal matters around his dwelling, and last, but by no means least, his amazingly irregular habits of sleep—these make up a list of morbific causes sufficient to account for the premature breakdown of thousands of victims. Perhaps an explanation will be asked in reference to the assertion that the farmer is irregular in his sleeping habits. True, he goes to bed at nine o'clock (though of late years he is making it ten), and gets up between day-break and sunrise, no matter when that happens to be—at 8.30 o'clock or at 4.30. If the sun should some time conclude to commence his diurnal journey at one o'clock in the morning, the typical farmer would consider himself forever disgraced should he fail to forestall him. As a result of this unfortunate arrangement the farmer gets the least amount of sleep in the summer, just the season when he needs the most. He likes to see a hearty eater, but he despises the hearty sleeper,

esteeming his soporific tendency the unfailing index either of indolence or mental asthenia, though he does not call it by that title.

Such influences, if indeed they fail of themselves to induce serious disease, must in very many instances give rise to a predisposition which sooner or later opens the gates of the organism to some deadly invader. The autumn and winter witness the harvest from seed sown during the spring and summer; low types of disease prevail where rugged health is expected, or a more gradual decline in health follows upon the persistent disobedience to nature's behests.

It has long been an impression with me, amounting indeed almost to a conviction, that nearly or quite all acute forms of disease require the existence of predispositions, and that these predispositions in a large proportion of cases are not hereditary, but acquired. There could be adduced here considerable evidence to show that the diseases which prevail in autumn and winter depend largely for their virulence upon conditions of the organism which have originated during the previous summer, and which have themselves arisen from causes largely under the control of the individual. The same remark applies with equal if not greater force to summer diseases, depending upon causes which originated during the previous winter.

Among the prominent exciting causes of sickness prevailing among our agricultural population we will dwell upon two only, viz., local impurities in the atmosphere, and the contamination of the drinking waters used by the household. The atmospheric contaminations are of two kinds, vegetable and animal. The former arises not so much from somewhat distant marshes or meadows as from decomposing vegetable matters in the farm-yard. To add to the noxious energy of these decomposing masses there is, in frequent instances, animal excrement or even decomposing animal tissues intermingled. In this way the ordinary dung-hill is probably as likely to breed the malaria which finds its way to the dwelling as the more distant swamp which receives the credit. Again, the too prevalent custom of allowing rank weeds to grow in corners and along fences around the farm buildings afford excellent retreats into which animals, and particularly poultry,

may wander away to die and decompose unseen. Still another and perhaps fruitful source of atmospheric contamination is the "swill-barrel," located sometimes just beside the house-door, regarded as a harmless appurtenance, but lined inside with a thick coating of a closely adhering mixture undergoing a steady decomposing process, and as likely to generate disease-germs as the most offensive sewer gas that makes its insidious encroachment into the city mansion.

The contamination of well-water is a subject not fully appreciated even by the physician, and we cannot expect, therefore, that the laity should as yet be sufficiently informed respecting this ever-present danger. The vast majority of farm-houses derive their potable water supply from wells in close proximity to the door. These wells are sunk to a depth sufficient to procure a suitable supply and walled up with stone, without cement, allowing water to enter the shaft at any point below the curb. In case the well-digger strikes a free stream of water, he fancies it a spring, nor dreams of the possibility that its source may be but a few feet from where he stands. When the well does not penetrate a bed of rock or of clay impervious to water, it must obtain its supply from the "ground-water" surrounding the well. This ground-water is simply rain-water which, falling upon the surface has made its way to a lower and lower level until, stopped by an impervious stratum, it gradually accumulates until the point of saturation is reached. The saturation level gradually rises higher and higher until the accumulating waters find an outlet over the verge of the impervious stratum, or until evaporation from the surface becomes equal to the amount of rain falling upon it. Here, then, we have a sort of underground lake, composed partly of water and partly of earth. The sinking of a well simply taps this lake and gradually drains out the accumulated water, its draining influence being felt in an ever-widening circle. It can be easily understood that the rain water, falling upon the surrounding surface, will carry down with it whatever of organic matter it may hold in solution or in suspension. The suspended matters are soon given up to the soil, but all experience shows that matters in solution will cling to the water and be carried by it through very long distances. Until quite recently it has been supposed that contaminated water

percolating through soils or porous rock, rapidly gives up its impurities and speedily becomes perfectly wholesome. Recent experiments made under the direction of the National Board of Health, however, show conclusively that in ordinary cases no such process of purification takes place. These experiments have, moreover, demonstrated that even organic germs—solids held in suspension—are not separated by percolation through hundreds of feet of fine sand. The idea, then, that foul and unwholesome water can be purified by percolation through soil to reach the house-well must be abandoned, and it would seem that in order to secure purity in an ordinary well, draining an underground body of water, it is necessary that the water shall be protected against contamination at the surface of the ground. And this leads us to the practical part of this subject.

One of the chief sources of contamination to be guarded against is the accumulations of water in the stable yard. This yard is usually located from one to two hundred feet from the house. If the house-well have a depth of thirty to fifty feet, the foul water penetrating the ground in the stable yard will have a rapid and easy descent to the bottom of the house-well. The same remarks will apply to the pig-sty and the privy, with this qualification, however, that the cesspool is sometimes located within a much shorter distance of the well. It usually happens, however, that most of these foul waters are evaporated from the surface, or near the surface, and so fail at first to find their way into the well. Under this action, however, the ground near the source of contamination becomes more thoroughly and more widely impregnated with the solid impurities left during the evaporating process, until it happens that some little, trickling underground stream taps the impregnated soil and the doom of the well is sealed. How often we have heard complaints of wells which, after having, for many long years, supplied an abundance of wholesome water, suddenly —in all likelihood after a heavy rain-storm succeeding a period of drouth—becoming intolerably foul, and no cure seemed possible even with the most thorough and scrupulous cleansing.

The protection of wells is a subject for which no inflexible rule can be laid down. Each furnishes its own special problem, and the sanitarian, like the physician, must individualize his cases. It

may, however, be laid down as a sanitary axiom that foul water, once it is allowed to enter the ground, passes beyond the control of the sanitarian. Hence the only certain method of dealing with water from a stable yard, a pig-sty, or a cesspool, is either to drain it through water tight pipes beyond the reach of the house-well's influence, or else to receive it into water tight reservoirs whence it can be removed and utilized at convenience. One of the commonest mistakes made by those most nearly interested in this subject is that of supposing that safety to the well is secured if, owing to the declivity of the ground, there is a natural drainage away from the direction of the well. The fact, however is, that water which enters the ground upon a hill-side is no longer affected by the inclination of the surface, and is about as likely to flow in the direction of the top of the hill as toward the bottom.

For a graphic description of some malignant house epidemics due to impurity in well waters, I would refer to the first annual report of the New York State Board of Health, recently issued. One of these records the illness of nine persons in one house, and the death of five in a space of five days. Cause, soakage of decomposing urine into the house-well through a defective drain. Another mentions four deaths in a family of five in a space of three weeks, and from a cause very similar to the one above mentioned. Still another describes an outbreak of typho-malarial fever in which there were over thirty cases in two houses. These victims, of whom fortunately only one died, were operatives in a mill. A new well had been dug on a line with the privies used by all the families, and so near that its water became infected to such a degree, that on boiling it a distinct fœcal odor was perceptible. The Board, speaking of these records, says the neglected cellar and the family well have been the sole causes of many a house epidemic that has seemed as wanton a tragedy as any which stealthy assassins could plot and perpetrate.

REPORT OF THE BUREAU OF OPHTHALMOLOGY AND OTOLOGY.

Dr. W. H. Bigler, chairman of the bureau, presented the following papers which were read and referred:

Accommodative Asthenopia, by W. H. Bigler, M.D.

Leucoma, by J. E. Jones, M.D.

ACCOMMODATIVE ASTHENOPIA.

BY W. H. BIGLER, M.D., PHILADELPHIA.

According to its literal meaning, the term asthenopia, weak sight, might with perfect propriety be applied to any condition of the eye in which the exertion of the visual act is imperfect, or attended with inconvenience or distress.

It was in this wider signification that the term was employed by oculists up to within a comparatively recent period, and by general practitioners at the present day we frequently find it so used, when ignorance of the true import of its symptoms is less excusable.

Its cause remained for a long time obscure, and hence its relief was exceptional and accidental. It was ascribed to fatigue of the nerves (Scarpa); to weakness of the retina (Beer); to an affection of the choroid or retina (Lawrence); to congestion of the choroid (Tyrrel); it was the beginning of amblyopia (Sichel); or was one of the ten different forms of that affection (Behm). By degrees the participation of the retina in its production was excluded, (first by Bonnet) and the cause was sought in the organs of accommodation. At first the trouble was ascribed to the action of the external muscles and these were divided for its relief, but subsequently, after the true principle of accommodation had been discovered, it became pretty generally recognized that in typical cases the symptoms of asthenopia were owing to the difficulty experienced by the ciliary muscle in maintaining the proper focal adjustment, in other words, in limitation or imperfection of the accommodative power.

Donders, in his valuable researches into the nature of hypermetropia, was the first to demonstrate the dependence of most forms of asthenopia upon the hypermetropic structure of the eye.

It is to this form of asthenopia, called accommodative asthenopia, that we will confine our attention, and refer to the so-called muscular and retinal varieties only in as far as it is necessary to learn to distinguish them from this one.

Donders gives the following perfect picture of the symptoms of accommodative asthenopia:

"The eye has a perfectly normal appearance, its movements are undisturbed, the convergence of the visual lines presents no difficulty, the power of vision is usually acute; and nevertheless in reading, writing, and other close work, especially by artificial light, or in a gloomy place, the objects, after a short time, become indistinct and confused, and a feeling of fatigue and tension comes on in and especially above the eyes, necessitating a suspension of work. The person so affected now often involuntarily closes his eyes, and rubs his hand over the forehead and eyelids. After some moments rest, he once more sees distinctly, but the same phenomena are again developed more rapidly than before. The longer the rest has lasted, the longer can he now continue his work. Thus after the rest of Sunday he begins the new week with fresh ardor and fresh power, followed, however, by new disappointment. If he is not occupied with looking at near objects the power of vision appears to be normal, and every unpleasant feeling is entirely absent. If, on the contrary, he endeavors, notwithstanding the inconvenience which arises, by powerful exertion to continue close work, the symptoms progressively increase; the tension above the eyes gives place to actual pain; sometimes even slight redness and a flow of tears ensue; everything is diffused before the eyes, and the patient now no longer sees at first well, even at a distance After too long-continued tension, he is obliged to refrain for a long time from any close work. It is remarkable that pain in the eyes themselves, even after continued exertion, is of rare occurrence."

Hypermetropia is one of the commonest conditions met with by the oculist. In this condition and causing it, the eyeball is too short, its outer posterior axis is shorter than the focal length of its refracting media, so that the retina lies within the principal focus

of the lens system, and the images formed thereon are diffused and indistinct. In order, therefore, to focus upon the retina even parallel rays, that is, such as proceed from distant objects, the focal length of the lens must be shortened by increasing its convexity, until it corresponds exactly to the position of the retina. This is done by the accommodation, through the action of the ciliary muscle. If this effort is necessary for parallel rays, an additional effort is required to bring to a focus on the retina rays entering the eye in a divergent manner, that is, those emanating from near objects. Thus the hypermetropic eye is never at rest so long as it endeavors to gain distinct images of surrounding objects. The efforts required for clear distant and for clear near vision will of course vary in degree. Hypermetropia is congenital, and does not increase except slightly in old age, consequent on the gradual shrinking and flattening of the crystalline lens, giving rise to acquired hypermetropia. It cannot decrease, except by an increase in the convexity of the cornea, and this, where it does occur, is the result of disease, and is rarely symmetrical, and hence of no avail for purposes of improved vision. It is apparent that if the ciliary muscle is competent easily to produce the changes necessary to distinct vision, no symptoms of asthenopia will arise. If, however, from any cause, either too great flattening of the ball, excessive absolute hypermetropia, or hardening and shrinking of the lens in old age, or impairment of strength, the ciliary muscle is not thus competent, then we have the symptoms of accommodative asthenopia as above described.

An impairment or want of energy of the muscle of accommodation may be the result of general weakness, ill-health or exhausting disease. We can thus readily understand how there may exist for many years in a healthy person a latent hypermetropia, which suddenly manifests itself in asthenopia of a distressing character, after some protracted illness, or in the case of women after miscarriages, disordered menstruation, prolonged lactation, etc.

In high degrees of hypermetropia when a powerful effort of the accommodation is constantly needed from childhood up, asthenopia is seldom wanting. Here objects can by no exertion of the accommodation be made to appear clear, and the patients frequently seek to compensate for this by bringing the objects close, so as to enlarge

the image. This causes an appearance of myopia, for which it is often taken, especially if complicated by any astigmatism, as is frequently the case. This will produce also a complicated form of asthenopia, for we will have with the symptoms already described, those of the so-called muscular asthenopia, dependent upon the excessive convergence demanded.

A complication with astigmatism will, even in the lower degrees of hypermetropia, sometimes produce severe symptoms of asthenopia, often quite out of proportion to the error of refraction discoverable by the most careful examination. In fact, we find here, as elsewhere, that individualities may not be lost sight of. We meet too with cases of very low degree of simple hypermetropia producing great distress, while in others, a comparatively high degree is borne without inconvenience.

There are three symptoms of accommodative asthenopia which may be regarded as diagnostic, viz.: the blurring or dimming of the objects after exertion of the eyes—shown in children by watering of the eyes and blinking—the feeling of tension above the eyes relieved by rest, and closing and pressing the lids, and the absence of pain in the eyes themselves.

There are several affections of the eye attended with symptoms of irritation and inconvenience when using them which have at times, but only by careless observers, been taken for asthenopia, viz.: chronic conjunctivitis, which, indeed, often accompanies the other symptoms of asthenopia, — superficial or phlyctenular keratitis, the first stage of an iritis and granular lid.

The symptoms of *muscular asthenopia* by which it may be diagnosed from that form of asthenopia which we have under consideration, are the following: The patient complains of the discomfort that continued work on near objects occasions him. After using the eyes for a time objects become confused, overlapping each other, running one into the other. This is attended with an aching and sense of fatigue referred, not to the forehead, but rather to the inner canthi and the bridge of the nose. The symptoms of vision are caused by the gradual relaxation of the over worked internal rectus muscle, the consequent eversion of the eye by the action of the external rectus and the slight resulting diplopia. It is not, as in accommodative asthenopia, a blurring

of a single image, but the running together of two. This form occurs most frequently in myopia, or where there is a difference in the focal power of the two eyes (anisometropia).

Very similar in its distinctive features to this muscular asthenopia is another form, depending upon a want of harmony between the accommodative effort and the convergence effort. The muscular fatigue is due to the endeavors to combine these two in proportions which disturb their natural relations. In hypermetropia we may say that the eye accommodates in excess to its convergence, while in myopia the convergence is in excess to the accommodative effort. The distinguishing visual phenomenon is the rapidly alternating clearing and dimming of the near object, together with its apparent motion backwards and forwards, causing dizziness and sometimes even nausea.

This form occurs most frequently in excessive hypermetropia unaided by glasses, or in hypermetropia where improper glasses, generally too strong ones, are being used.

From *retinal* asthenopia it may be distinguished by the following symptoms of this affection: Although the patient complains that his eyes become painful and watery on exposure to irritants, or on attempting to use them for near work, they are not obliged to desist on account of the blurring of the objects, but from the pain and irritation in the eyes. The symptoms are not relieved by rest, but may continue long after work has been laid aside. The feeling of tension above the eyes is wanting, while there is often considerable photophobia and pain at the back of the eyes. The symptoms are generally worse in the morning and again after a day's work, and vary much with the patient's state of health. This complaint will be found to depend upon a morbid sensibility of the nervous system, is rarely met with in children and old persons, but is most frequent in women, or, if in men, in those who are nervous and hypochondriacal. The ophthalmoscope will usually reveal hyperæmia of the optic nerve and retina.

From certain inflammatory diseases of the internal tissues of the eye, the retina and choroid, which are often accompanied with symptoms of asthenopia in its widest sense, the ophthalmoscopic appearances, the persistence of the symptoms and the locality of the distress attending them, will be sufficient to distinguish accommodative asthenopia.

As regards the treatment. Although a diminution of the acuteness of vision has never been found to result from excessive tension of the accommodation, the distress and irritability arising are often so great as seriously to affect the health of the patient, and particularly that of his nervous system. Without wishing to prescribe spectacles as a universal cure for neurasthenia, chorea and epilepsy, I would most earnestly recommend the testing of the muscular and refractive powers of the eyes of patients suffering from inveterate neurotic affections.

Donders, in speaking of his discovery of the true nature of asthenopia, says: "The connection of asthenopia with the circumstances under which fatigue is manifested was made most clear; the necessity of complete relief by spectacles was proven, while at the same time the hope of a radical cure of asthenopia was extinguished."

Since he defines asthenopia as the *tendency* to fatigue, we must admit the correctness of the last clause, for this tendency depends upon the unalterable structure of the eye, and we cannot hope by any means at present known to elongate a flattened eyeball. There are, however, two factors in the production of the fatigue resulting, which are amenable to treatment, viz., the muscular power and the nervous susceptibility of the patient. These will be favorably modified by all remedies, medicinal and hygienic, directed to the general condition of the patient. Absolute rest of the eyes is neither essential nor even advisable. During medical treatment only moderate use should be allowed at first, but after the treatment is complete, or the proper glasses have been prescribed, the ordinary occupations may be engaged in without danger.

It would not be profitable to mention all the remedies that might in one case or the other prove of benefit, and I will therefore merely draw attention to three remedies that have, according to my experience, the most direct relation to the eyes in this condition, and are of most frequent application:

Ruta. Pressure in forehead; heat and soreness in the eyes when reading by candle-light; itching of inner canthi and margins of lower lids; eyes fill with tears.

Nat. mur. Heaviness and aching in the forehead above both

eyes; dull pressure in forehead. Tension in the eyes; dry burning of the eyes when using them; itching of the eyes.

Argent. nit. Pressure in the forehead; aching pain above the eyebrows; eyes are filled with mucus; vanishing of sight; partial paralysis of the accommodation.

If these remedies, or any others called for by the symptoms of the case, should prove unavailing, recourse must be had to spectacles. The use of glasses gradually but surely lessens the power of accommodation, and we should therefore not be too hasty in prescribing them. On the other hand, our duty to our patient forbids us continuing internal medication alone, after a reasonable time has elapsed without relief.

Having decided upon prescribing glasses, the total hypermetropia should, in all cases, be determined where the occupation of the patient permits the use of a mydriatic.

If there are no complaints in regard to distant vision, it is advisable not to give glasses for constant use, but only for near work. The manifest plus one-fourth of the total hypermetropia is the theoretical formula for determining the strength of the glasses to be prescribed, but frequently, on account of some anomaly in the range of accommodation, this will have to be deviated from. In any case, I prefer having the patient try the glasses after the accommodation has been restored, and before receiving the final prescription, for it is of the utmost importance that the harmony between accommodation and convergence should be maintained, or restored if disturbed. Too strong glasses cause objects to be held too close to the eyes, and thus we bring about muscular asthenopia. If the glasses are not strong enough, we do not relieve the asthenopia. Sometimes it is a matter of the greatest difficulty to reconcile these two powers. The principle to be followed is to prescribe for the ametropia alone, and to have the spectacles used steadily for a couple of weeks. Should the asthenopia continue, we fix upon a degree of the convergence, say at 12–14 inches, and then compel the accommodation to adapt itself to this. In very obstinate cases, after correcting most carefully every possible error of refraction, systematic exercise of the eyes with the proper glasses should be enjoined, at stated hours, three times a day, for a length of time not sufficient to cause fatigue, to be increased by a little daily.

We may find some cases where such an irritability of the retina has resulted from overstraining the eyes that even the slightest effort at accommodation is attended with violent pains in the eye. Even the suitable spectacles do not relieve, since simple convergence is enough to produce tension of the accommodation and pain. Here the only treatment of avail, perhaps in conjunction with an internal remedy (conium for example,) is the paralysing of the accommodation by the regular instillation of atropia, while the use of strong glasses will enable the patient to follow some occupation meanwhile.

In conclusion, I would merely add that in the treatment of this, as in that of all other diseases of the special organs, the interests of the patient are best subserved when the specialist is a physician and the physician a specialist.

Dr. Jones stated that in fitting glasses for such cases, he placed behind the myopic glass a prism, which completely relieved the asthenopia, so that the patient, who could read only for a few moments, was enabled to read for hours.

Dr. Bigler said that prisms were for the relief of muscular asthenopia.

Dr. Morgan: This matter has been brought to my attention, not only in a great number of patients, but in myself. About a year ago my sight became dull, accompanied by brain-fag and exhaustion. No matter what I did, the brain-fag continued until my attention was awakened to the fact that the fault was in the optical apparatus. On examination, it was found that, in addition to the slight presbyopia, there was also vertical myopia in the meridian, and this was the cause of the brain-fag. The application of suitable glasses gave complete relief, which the previous use of silicea and other drugs had failed to do. I can recall two cases where a supposed hyperæmia of the brain was found to be due to astigmatism; and I would caution physicians that when there are anomalous headaches and troubles with the eyes, this cause should be suspected. I had a case, that of a lady, who was subject to periodical attacks of sick-headache. The pains were so severe that she would bury her eyes in her hands and press them into the pillow. Bell. did no good, and I gave

her lac defloratum[1003], which I had secured two years before, but had never used. The next day she was perfectly free from pain. The previous attacks generally lasted three or four days. I inquired after the result, and found that she had not taken the medicine fifteen minutes until she was better, and when night came she was entirely free from pain. I leave you to say whether the medicine had anything to do with the pain or not.

LEUCOMA.

BY J. E. JONES, M.D., WEST CHESTER.

Leucoma or albugo, may be defined as a patch of opacity, over or in the tissue of the cornea, of more or less density. From the faintest milky, bluish tint or cloud, it may deepen into a dense opaque whiteness, or a pearly appearance, looking like a piece of tendon stretched across the surface of the cornea and partially embedded in its tissue. It may be limited in extent, covering but a mere point and not interfering much with the use of the eye, or it can cover all the surface in front of the iris, so that vision may be completely obscured. Usually, the lighter patches are spoken of as nebulæ, and leucoma confined to those cases where the surface is larger and denser, consisting of either white, dense membranous or ligamentous substance, and in some cases of deposits of lime, exhibiting a granular or shell-like form under the microscope.

Albugo usually commences in keratitis, which runs into abscess, and the tissue formed to repair the cornea, is cicatricial.

There is a superficial opacity of the cornea, which is produced by an epithelial change; the cells become thickened, disordered, opaque, and often take on a fatty degeneration. These are of a bluish-gray color and irregular margin, and may be so slight as to escape ordinary observation, but they are sufficient to cause a refraction, which seriously hinders the sight over a portion or the whole of the visual field.

A deposit of lymph may take place into the tissue of the cornea, or rather between its layers, which gives all the physical signs of the superficial variety, but can be separated in diagnosis by

oblique illumination. These deposits are more dense in character and are whitish-yellow in color. They may cover but partially the cornea, and are called partial leucoma; or they may extend over its whole surface and become a cause of complete loss of vision.

Another variety is caused by more deep ulceration, the irritation of which may perforate the cornea, causing inflammation enough to cause the iris to adhere in anterior synechia, but healing, leaves a cicatrix, which if situated in the centre of the cornea, obscures vision, save very limitedly at the circumference.

Where the deposits of calcareous matter take place, is usually in the anterior elastic lamina. They are of a darker hue and brownish color, occasionally chalky, and can only be diagnosed by the sensation of grit given to the knife when scraping or removing them.

Still another cause, which is troublesome and often impossible to remove, is the leucoma produced by the deposit of lead on a broken epithelial surface from using a solution of lead, the base of which can be set at liberty and deposited in the tissue of the cornea. Great caution should be observed when using a collyrium containing a salt of this metal, for it is never unattended with danger to the sight if there is the least disorganization of the surface. Especially is the danger increased when any one of the preparations of silver is brought in contact with that of lead.

The prognosis in leucoma depends on the age and constitution of the patient, the amount of disorganization suffered by the lamina of the cornea, also by the age, the extent, location and nature of the deposit. In the young, they often disappear, after simple treatment, but in the middle-aged and old, especially when there is a degenerate constitution, all concede the impossibility of their removal save by the knife, which is attended with considerable danger to the organ when the deposit or cicatrix embodies the surface of the cornea largely, or is embedded deeply in its tissue. Yet there are exceptions to this prognosis when homœopathy is used, for I well remember a case that came but a short time since under my care, of a woman 35 years of age, highly scrofulous and debilitated by continued sickness, who, suffering from a protracted attack of granular ophthalmia, was years under the

professional care of some country physicians of the old school, then came to West Chester and went the rounds of the best allopathic physicians here, with only the result to leave both eyes with heavy, extended leucoma. She then went to Wills' hospital, in Philadelphia, and for a year was tortured in the most approved style, *secundum artem*, with the second result of not a particle better sight, which at that time was but a slight perception of daylight. For two years she remained in the country on a farm trying to improve her general health, taking no medicine, and having no attention to her eyes.

Induced by a success in another case, she was persuaded to place herself under my care.

She came into the office led by her father, like one blind, presenting the following condition: In general health, much improved by the sojourn in the country, but the remains of her highly scrofulous constitution showing itself in large nodosities on each side of the neck, in the submaxillary and cervical glands. The eyes present the appearance of total blindness. The right one more densely covered over the cornea throughout its extent, with a thick membranous or ligamentous leucoma, apparently deeply embedded in the tissues of the cornea. The active inflammatory stage had passed, but had left the cornea very prominent, with some hardening of the ball, amounting to T^1. The heavy, dirty, yellowish-brown patch over the cornea was large enough to cover its entire surface, hindering the sight of even a corner of the enlarged iris. Although irregular in outline, yet it made the r. e. v. nil. The left eye was in a nearly similar condition, save that the T was less marked and would amount to T^1? The patch of leucoma was not quite so heavy, less extended, and at points the iris could be perceived beside it. Around its circumference, there was light enough admitted to enable her to detect the difference between day and night. Placing her before a large, bright window, and holding my hand between the light and her face, she could not discern its presence, nor could she even see the panes of glass.

Having been two years in this almost total blindness, she was perfectly willing to go patiently through any course of treatment that had even a shadow of hope of ultimate recovery.

Being anything but sanguine as to a favorable result, I purposely abstained from any decided encouraging prognosis; yet relying on the power of the properly selected remedy, I was willing to devote my best energies to the case.

After putting her upon sulphur for a few weeks, I had by that time determined that graphites was the best similimum. For three months, day after day, with scarcely any intermission, she took either four or two daily doses of graphites[2], and with a steady improvement in the condition of the eyes and their vision. When improvement would cease for a time, the sulphur would come into use for a week or two, then again could be perceived the good results of the doses of graph.

Six months had hardly past, when she could drive into the town from her country home alone, and walk without difficulty into my office, count fingers held up before her vision, and in nine months could see sufficiently to accomplish household sewing. The deposits of both eyes had been absorbed so that but the faintest nebulæ were seen, which, though preventing perfect vision, yet allowed sufficient to enable her to make life happy and extend her usefulness. The surfaces of the corneæ remained roughened, or rather irregular, which caused refraction to be, to a considerable extent, impaired.

Considering the severe early symptoms of this case, with the scrofulous constitution and its still vivid development, the duration of allopathic treatment, the time intervening with no attention, (two years,) and no improvement during all that time, and the results of about nine months treatment with the selected homœopathic remedies, shows a termination of the case which is truly wonderful, and adds greatly to the laurels of homœopathy.

The usual treatment in leucoma, under allopathic care, is to use stimulating collyria of every conceivable formula, insufflation of calomel, or red or yellow oxide of mercury, iodide of potassium, wine of opium, sulphate of copper, acetate of lead, sulphate of soda, nitrate of silver, acid nitrate of mercury, nitric acid, atropia, nitrate of potash, citrine ointment, sulphate of zinc, carbonate of soda, sulphate of datura or duboisia, and last of all, if these are not enough and the patient persistently refuses to get better, they deliberately go to work to cover up the defect by tattooing over

the spot some Indian ink, making the patient more presentable to the world, but leaving the world a black chaos to him.

Homœopathy offers something better. In most of the cases of nebulæ internal medication will be sufficient to improve, if not wholly restore sight. In many of the worst cases of leucoma wonders can be accomplished, and in the remainder something may be gained by operative procedure. When there is a calcareous deposit upon the surface of the cornea, or even embedded under the superficial lamina, it can be scraped off, and then with the appropriate remedy a good eye can be secured. There are some cases in which the layer of leucoma is superficial and very thick, and the dissection of the most of it off will hasten the relief; but the operation is very painful, and should be performed under ether.

Electricity, in some forms of albugo, has been reported to affect favorably the absorption of the deposit. I have never seen it do much good.

The homœopathic remedy will usually have to be chosen by the constitutional peculiarities of the patient, for it is rare that there are enough local symptoms of the eye to be sufficiently characteristic to guide with any certainty in its selection.

Allen and Norton report cures to have been produced by chel., cup. ac., kali bich., nat. sulph., and call attention to several other remedies.

Those most reliable in this affection, and now commonly required, are: sulph., calc. phos., graph., apis, arsen., soda sulphate, nitric acid, cup. acet., bell., euph., aurum, baryta-mur., calc. carb., hepar, iodine, kali iod., kali bich., merc. viv., petrol., silicea. In the above list will be found many of the best remedies for leucoma, but the peculiarities of the case may require others.

Dr. Williamson: Upon what symptoms were the sulphur and graphites prescribed?

Dr. Jones: Upon the constitutional symptoms and the enlarged glands.

Dr. Williamson: Did it have any effect upon the glands?

Dr. Jones: I did not notice any effect. I gave sulphur[6] and graphites[2x].

Dr. Morgan: Do you make any distinction between albugo and leucoma? Albugo is a connective tissue disease.

Dr. Jones: This was leucoma.

Dr. Morgan: Where there is opaqueness I have found zinc to have a good effect; it is also a valuable remedy in the opacity of leucoma. In cases where blood-vessels are converging toward the cornea, zinc high has been efficient.

Dr. McClelland: I have seen some good results from hepar sulph., silicea and calcarea carb. No organ responds so rapidly to treatment as the eye, as we might expect from an organ so well supplied with vessels and nerves. I think it is worth our trip to West Chester to hear this paper. It is a remarkable case, and shows plainly the beneficial effect of homœopathic treatment. This is encouragement to those of us who may become skeptical and lukewarm in the use of remedies. An occasional testimony of this kind confirms our faith and makes us more enthusiastic.

Dr. Dudley: A lady brought to my office her little boy, eight or nine years of age, who had suffered from inflamed eyes since infancy. He had been under the care of a surgeon at Wills' hospital for a year and a half, but his eyes were steadily growing worse. A short time before I saw the child he showed enlargement of the cervical glands; the whole appearance corresponding to calcarea carb. I advised her to send him to the country, intending at the same time to treat him with constitutional remedies, but she said she could not afford to send him. I gave him calc. carb., second decimal trituration, two powders a day. There was opacity and granulations with swelling of the lymphatic glands, with other symptoms indicating calcarea. At the end of two weeks there was decided improvement and he was then taken to the country. After returning to the city, at the end of four weeks, the child could see as well with the affected eye as with the other, and his whole appearance was changed. One of the glands suppurated but had healed; the inflammation was practically gone from the conjunctiva and the child was nearly or quite well. I do not think I have met with a case which was more satisfactory.

Dr. J. J. Detwiller: I would call attention to another remedy which has proved successful in glaucomas, and that is causticum. I also call attention to the harm done by the use of

collyria. Collyria, I am convinced, produce many organic diseases of the eyes, especially inveterate inflammatory conditions which continue for years and which no remedies restore. Another point in regard to Dr. Jones' paper. The ophthalmoscope may in some cases reveal a whiteness of the retina usually interspersed with hæmorrhagic spots; this, however, is not leucoma, but is readily dispersed under the administration of arnica.

Dr. Morgan: I do not know anything which will produce this condition except retinitis. This might produce amaurosis, and if arnica can cure this trouble it is an important remedy. Separation of the retina may be cured by plumbum.

Dr. Detwiller: This condition of the retina is not a common occurrence, and it is only recently that writers have begun to speak of it. The conditions characteristic of separation of the retina are well known.

REPORT OF THE BUREAU OF SURGERY.

Dr. C. M. Thomas, chairman of the Bureau of Surgery, presented the following papers, which were read, accepted and referred:

Caries of the Tarsal Bones, by R. V. Pitcairn, M.D.
How can you Cure Gonorrhœa? by J. E. James, M.D.
Surgical Cases, by W. R. Childs, M.D.
Villous Tumor of Rectum, by J. W. Detwiller, M.D.
Rapid Lithotrity, by C. M. Thomas, M.D.
Treatment of Chronic Ulcers of the Leg, by L. H. Willard, M.D.

CARIES OF TARSAL BONES.

Supplemental Report.

BY R. V. PITCAIRN, M.D., ALLEGHENY CITY.

At the meeting of this Society in 1879 (see Transactions, page 130), the case of Willie B., with caries of the tarsal bones, was reported.

In view of the generally recognized unfavorable issue of disease of these parts, a supplemental report of the favorable termination

of this case will no doubt prove interesting, if not valuable, as evincing how much may often be gained by persistent and patient attention to diseased action in these structures.

Referring briefly to the report then presented, it was stated that the foot had been operated upon with the dental engine, and, at a subsequent operation, incisions were made and the internal and middle cuneiform bones, with a portion of the middle metatarsal, were removed. These incisions had healed kindly, but the operation was followed by an abscess on the outer side of the foot in the region of the cuboid bone. The patient was given fluoric acid internally. It was stated, also, that the boy's general condition showed some improvement.

For a short period after this last operation the result seemed likely to prove satisfactory and the disease limited without further interference. The inflammatory action became greater, however, and it was found that the process was extending, and if not limited by a further early operation the adjoining parts would be so involved as to preclude the safety of the foot.

The operation was accordingly decided upon as a last recourse toward preserving the foot; but with the provision that, if it was ascertained that the disease involved the parts too extensively to admit of a fair possibility of saving the member, it was to be removed.

At this operation part of the cuboid, the external cuneiform and portions of the fourth and fifth metatarsal bones were removed.

As this evidently included all the diseased structure present, the condition was thought to warrant another effort being made for the recovery of the foot.

A strong impression prevailed among some of the physicians who witnessed the operation, that the indications were for the removal of the foot, and that the patient should not be harassed and weakened by the further progress of the disease, which it was almost certain would continue.

The daily dressings were made for some time after with feelings of regret that the foot was not amputated. However, with continued attention and after the discharge of a few spicula of bone, we were much elated to find the diseased action subsiding; and, shortly after, the sinuses closed soundly and all appearance of further trouble was removed.

When the boy was permitted to use the foot, a splint was so attached to the shoe as to allow of no motion at the ankle joint, and thus prevent, as far as possible, movement between the bones of the foot.

The foot is flat and club shaped, and much shorter than the other, but is sound and presents a fair, shapely appearance, considering the extent of the disease and the operations performed.

The boy is hale and hearty and has used both feet with equal freedom for some months past. Some estimate of the solid and enduring condition of the foot may be formed from the fact that the boy has moved about barefooted at times during the hot season, which would render it liable to bruises and injuries that would excite a renewal of the diseased action in a more tender condition of the member.

Hepar sulph., the sixth attenuation, was the only remedy administered from the time of the last operation. No benefit was derived from the remedy, however, when given at an earlier stage of the disease.

Dr. C. M. Thomas: The dental engine used in this operation reminds me of a similar case which was operated upon by Dr. Willard, at the meeting of the State Society in Philadelphia in 1877. That case had been operated upon by gouges both by Dr. McClelland and myself, but the disease continued to advance. After a more thorough operation by the dental engine the patient recovered, and has remained well up to the present time. The results are certainly more satisfactory after the use of the dental engine than with the ordinary means.

Dr. Morgan: The dental engine is now used by old school surgeons, and as it was first used in Philadelphia by the homœopaths, we have a right to the claim of first introducing it into the surgical armamentarium.

Dr. McClelland: It had been used in Pittsburgh before presented to the Society by Dr. Willard at Philadelphia.

Dr. Willard: I am glad to hear the result of the operation referred to by Dr. Thomas. The operation for the removal of diseased bone in the foot is usually considered as a useless operation, and the removal of the foot is advised. This is a mistake.

It was the persistent attention given this case that enabled the boy to recover. Hepar sulph. was also used. The boy improved under the use of fluoric acid, but I think the favorable results were chiefly due to hepar sulph.

Dr. Morgan: Was there any signs of blood poisoning? The newspapers state that the first lumbar vertebra of the President was injured and blood poisoning resulted from that. Now here is precisely the same injury to a spongy structure of bone and no evil results.

Dr. Willard: In this case there was free vent to all pus.

Dr. J. E. James: I have never used the dental engine, but only the ordinary bone drill. It is not as serviceable an instrument as the dental engine.

Dr. Detwiller: I have had considerable experience with injuries to bones of the feet. In one case the boy was run over, and as a result the tarsus was crushed, the tibia was exposed and there was a profuse hæmorrhage. The physicians called determined to amputate. The father of the child insisted upon my seeing the case. In order to save the limb, if possible, I placed it in a fracture box, elevated the limb and applied arnica in solution. The physicians previously in charge were willing that I should treat the case, as there did not seem to be any chance to save the limb. By perseverance and careful attention I saved the foot. The bone was denuded, and the patient would not allow it to be touched. The bone turned black, and a portion of it exfoliated and was finally covered with healthy tissue. Upon the sixth day the foot turned blue and showed signs of mortification, but further progress was prevented. I continued the external use of arnica and warm water, and also gave arnica internally. The continuous external use of arnica should be avoided, or very carefully watched. The boy is now able to use the foot.

Dr. McClelland: I would mention hecla lava as a remedy for caries of the bones of the feet. I have also obtained very favorable results from the use of this drug in caries of other bones. Before leaving home in June I saw one of our prominent citizens who had exostoses of the tibia. The nodosities were very large. He had been under homœopathic treatment for several years, and also under that of the old school. The disease had

gradually incapacitated him from attending to his official duties, in consequence of the continuous pain. I gave several remedies, such as asafœtida, silicea, etc., but without any favorable result. I then operated upon the diseased structure, removing, by means of the chisel, the exostoses together with a portion of the periosteum which had become carious and soft. Afterwards my brother continued the treatment of the case, but the pain in the bone continued, and there was no relief at the end of two weeks. An old school surgeon then saw the case in consultation, and said there was necrosis of the whole bone, and advised that the diseased portion should be removed. The patient would not consent to an operation, but continued the internal treatment. He was then put on hecla lava, and in the course of three days the pain subsided; by the end of a week the pain was gone, and by the end of the second week the wound was healed, and the judge was able to resume his duties.

Dr. Mohr: I rise to emphasize what Dr. Detwiller has said with reference to arnica in contused wounds. The arnica bottle is found in every house, and is used strong or weak, as the case may be, for several days at a time. Some years ago a friend of mine sustained an injury to the leg, but paid no attention to it at the time. When undressing at night he found the leg was swollen, bruised, and sore, and he at once resorted to the application of arnica. The result was that although under the best of circumstances, which precluded all idea of erysipelas, this condition set in and the man died. Dr. Hering's idea of arnica prepared from the whole plant was, that it would produce erysipelas. I have seen it do injury when the application was long continued. I have my patrons use the arnica prepared from the root. My directions are to use a weak dilution for two hours and then discontinue. If there is to be any benefit from its use it will be obtained within that time.

Dr. H. N. Martin: I would call attention to asbestos in caries of bone. There is no proving of it, but I have used it with favorable results for ten or twelve years.

Dr. J. K. Lee: I do not believe in the introduction into clinical discussions of remedies which have no recognized standing in our school; it opens a vast avenue for lumbering our materia medica.

Dr. Martin: I suggested the remedy for the purpose of calling attention to the necessity of a well-instituted proving.

Dr. Morgan: I would say a word in favor of calc. phos. In bone affections it is reliable, and I would give it before hecla lava, and resort to hecla only when the former had failed. Where fractures refuse to unite, the sixth of calc. phos. produces a remarkable effect.

Dr. Dudley: Has Dr. Morgan any symptoms for calc. phos.?

Dr. Morgan: I use it in the various forms of osteitis and necrosis where there is a failure in the bone nutrition.

Dr. Jones: Calc. phos. is adapted more when the disease is internal without external opening. There is no good result, as a rule, when there is an external opening.

Dr. Morgan: Where there is a suppurating discharge, either of the bony or soft parts, calc. sulph. is to be considered.

HOW CAN YOU CURE GONORRHŒA?

BY J. E. JAMES, M.D., PHILADELPHIA.

The frequent repetition of the question which forms the title of this paper is my only reason for inviting your attention to so old a subject.

Dame fashion reigns in everything; so it does not seem strange to find medical treatment no exception. Probably the treatment of no disease has had the fashion so frequently "set" by some eminent man, and as frequently followed, as gonorrhœa. For this the undoubted cause is the marked failures that have succeeded each in its turn; copaiba, sandal wood, etc., etc., but illustrate the truth of what I have just said. The vain hope of finding a specific has actuated all, but we have to learn what has long since been shown us, that, notwithstanding the disease may be the same in character, its products retaining the same properties, yet its manifestations and consequent treatment must vary with the individual case, influenced by an immense number of causes, such as constitutional peculiarities, condition of health, general and special surroundings and habits. The disease as occurring in the female is a comparatively slight affair, affecting, as it generally does, parts that are

easily kept clean and free from irritation; but when in the urethra of the male, difficulties are presented. When we consider the long, narrow tube, whose sides are normally in contact with each other, some of the reasons are apparent. It is with special reference to gonorrhœa in the male that this paper is written.

The disease itself is a local one, affecting the part of the mucous surface that comes in direct contact with the virus or infecting pus, the result of the inflammation. The inflammation may affect other parts than those originally attacked by the well known methods that influence non-specific inflammation, for instance: by contact, contiguity, metastasis and septicæmia. There are no direct constitutional results and no period of incubation as in what are termed constitutional diseases. The virus begins at the seat of contact and excites congestion, inflammation and destruction until it has proceeded far enough to cause some annoyance and local irritation, when the premonitory symptoms are manifested, in a more or less short time, according to a variety of circumstances, generally, we may say, from three to seven days. The symptoms in particular I need not refer to, but the character of symptoms of the various stages should be noticed.

The premonitory or first stage is one of congestion, and is the time for aborting the disease, if happily we could then see it. Though the virus has its power (specific) of reproduction, yet the resulting congestion does not differ from congestion in the same parts from other causes, and does not require different treatment. I regard it simply as a local injury produced by a cause which acts similarly to chemical injury, minus the power to antidote it as I would a poisonous acid or substance with a known antidote. I have found of the greatest service aconite, belladonna and cantharis, as indicated, together with frequent application of hot water to the organ and parts affected. The disease starts at the meatus and gradually extends up the urethra, hence it is only necessary in this stage to inject in the fossa navicularis, and great care should be taken not to injure the congested mucous membrane by the introduction of the nozzle of a syringe.

The second, or inflammatory stage, is the one during which the greatest care should be exercised. Already the part is in a high state of inflammation with a profuse secretion of pus, and a constant

tendency to such complications as ulceration of the mucous membrane, abscess, inflammatory infiltration causing chordee, phimosis, etc., and anything that will excite or irritate the part must aggravate the case, so that to use strong injections to abort the disease in this stage is unsafe, and in by far the greater number of cases is attended by evil consequences, such as suppression of the discharge, metastasis to the testicle, stricture, etc. I have obtained the best results when I remained contented with the remedy selected in accordance with the symptoms; among the more favored being cantharis, mercurius, cannabis, pulsatilla, hydrastis, hepar sulph. and copaiba, and, in addition thereto, directing that the patient should rest as much as possible, and frequently cleanse the parts with warm or hot water. Now when the syringe is used, the utmost care should be exercised that no abrasion of the mucous membrane occur, as in that event the case is apt to be complicated by an ulcer or abscess. I recommend the bulbous pointed syringe, as less danger is liable to follow its use than from the old ordinary ones. The injections should take place only after urination, the urethra first being cleansed with warm water, then the medicated lotion injected, the meatus being kept closed, and with the finger the injection gently forced up the urethra, until brought in contact with the entire inflamed portion.

As soon as the inflammatory symptoms pass away and a stationary point occurs, or convalescent stage begins, and the discharge shows no marked tendency to decrease, I use medicated injections, but always of a mild character. Never should irritating injections be used in the urethra, as they are the cause, in the vast majority of cases, of stricture and gleet. I have met with the best success from carbolized water, not stronger than one to forty, carbolized sweet oil, one to twenty, nitrate of silver, one grain to the ounce, permanganate of potash, one grain to the ounce, and hydrastin sulphate, one or two grains to the ounce. The hydrastin, especially, has given me most excellent results. If there is a tendency for the discharge to continue and become chronic, especially if the stream of urine becomes smaller, forked or twisted, a stricture should at once be suspected and an examination made. If found, it should be dilated by either the gradual or rapid method, or cut. The obstruction must be removed or the gleety discharge will remain, in spite of all internal medication.

The diet should be regulated, the patient eating at stated times a moderate quantity of good, wholesome food; all highly seasoned and greasy things being avoided. Liquor should be stopped, especially malt liquors. I have often seen cases that were convalescent relapse into the inflammatory stage after drinking from one to three glasses of beer. The treatment of the various complications I leave to those who may take part in the discussion. Let me say that very many cases are spoiled by the too great anxiety to cut the disease short or abort it. My own experience is to the effect that we should make haste slowly, and never try to palliate, but by steady perseverance cure the case.

Dr. Lippe: I do not believe that gonorrhœa is any more a local disease than small-pox, and I am opposed to injections as likely to cause stricture. The true way is to take the symptoms carefully, administer the remedy in small doses and await its action. We must not expect to cure these cases in two weeks, or less. The more we attempt to hasten a cure the more evils will result. We never have swollen testicles, inflamed eyes, or anything of that kind under strict homœopathic treatment. There are cases which recover slowly on account of the suppression of the discharge by means of nitrate of silver.

Hahnemann cured burning pain in the urethra with petroleum. When the discharge is green, mercury is of service. Give the remedies time to act, and never allow the patient to use warm water. When a man comes to me he must take homœopathic treatment or nothing.

Dr. James: I have recently read an article advocating the local injection of sulph. acid.

Dr. Dudley: Is the period of incubation seven days?

Dr. Lippe: Five to seven days.

Dr. H. N. Martin: I understand Dr. James considers the disease local in its manifestation. I believe gonorrhœa is a local manifestation of a general disease. In some cases it might be objectionable to use injections. We have our patients as well as our principles to take care of. If the patients will wait they recover safely and promptly, but they are seldom willing to wait. They do not care for homœopathy, they want to be cured. They

do not care for catarrh or sore eyes, but want the discharge stopped.

Dr. Morgan: Repeated doses of terebinthina, in a high dilution, twice a day, cures to a certain point a large proportion of cases. Dr. Macfarlan uses it in his practice with success. Besides this, the remedies of Schüssler are also useful. We must use aconite for the acute symptoms, but when the disease has passed this point, and when terebinth. has exhausted its action, then the remedies prepared from the kalis are of service, and the best in the exudative stage is the kali mur. I do not care what the treatment is, if it goes on until there is areolar hyperplasia in or around the urethra you will have a stricture, and when kali mur. or silicea fails to remove this exudative process, you will have to use the bougie.

Dr. Dudley: We may say what we please of our knowledge of homœopathy, but the allopaths are the best in pathology. We know more of treatment, they of pathology. The fact is patent to us. Now the general impression in that school is that of the non-specificality of gonorrhœa without any period of incubation. What is incubation? It is a development just as animals are developed. This development requires a definite time and condition. Where the condition is wanting, time alone does not produce a result, and *vice versa*. The information you get from this class of patients must be taken with some grains of allowance. The men we can most readily believe are the men who are utterly lost to shame; men who do not care what they tell. It is the "gentlemen" who lie. One young man, without any sense of shame, came to me and said he contracted the disease the night before. I replied that I did not believe it, but he insisted it was true. The old school writers insist that you cannot count upon a period of incubation. I used to resort to injections of nitrate of silver, sul. zinc, hydrastis, etc., in the secondary stage, with aconite, bell. and mercury in the beginning, but lately I treat cases, as recommended by Dr. James, with cleanliness and homœopathy, and the patients are cured. The way to treat the disease is to guard against renewed infection. You must guard against gonorrhœal poison by keeping the parts clean. If a drug applied to the tongue overcomes the action of a remedy, the poison on the urethra overcomes it in the same way.

DR. MORGAN: Had the case you mentioned had gonorrhœa before?

DR. DUDLEY: Three years before.

DR. MORGAN: Any gleet?

DR. DUDLEY: Yes, but merc. sol. relieved it.

DR. MORGAN: The mere irritation of connection may have awakened the chronic inflammation which had remained dormant for the three years previous. We must get rid of this possibility before we believe this man could have got it in twenty-four hours.

DR. LEE: The common use of asparagus always interferes with remedies. It produces a decided influence on the character of the urine.

DR. H. N. MARTIN: I believe coffee is also injurious.

DR. WILLARD: I think there is a period of incubation of from a week to ten days.

DR. JAMES: There is a time before the symptoms manifest themselves in which the patient knows he has contracted the disease. In some fifty cases which came under my observation, on the first day after contact the evidence of congestion in the meatus was present. The fact of the subjective symptoms presenting themselves three or five days later does not show a period of incubation. The virus is slow to act at first, but afterwards we have congestion, inflammation and exudation, which are not manifest at the beginning. Some say that because they neglected the precautions of cleanliness they contracted gonorrhœa. I do not believe it takes eight days to travel two inches up the urethra. I therefore conclude that there is no period of incubation. The symptoms that manifest themselves in gonorrhœal rheumatism are those of slow septicæmia. The question is not settled whether any pus would not produce the symptoms of gonorrhœa.

DR. MORGAN: Under endoscopic examination, when does the congestion occur?

DR. JAMES: Inside of twenty-four hours.

DR. DETWILLER: I have treated many cases of gonorrhœa, and the treatment is very simple—antiphlogistics at first, with absolute rest, milk diet, and the avoidance of injections. I think Dr. Lippe is correct. Old school authors generally speak doubtfully of even simple rose water injections. Holding the penis in warm

water gives wonderful relief. Thuja is a valuable remedy, as also petroleum and apis. For gleet, the introduction of the bougie and abstinence from animal food and work are the essentials for a successful treatment.

Dr. McClelland: It is the object of every one to cure his cases as soon as possible, and any information that is good we should be willing to receive. If the disease is investigated and such and such statements are found to be facts, no difference what school they come from, we should adopt them. I think that there is no question in regard to the correctness of the pathology of gonorrhœa. There is nothing in doubt. The result of investigation is that gonorrhœa is an infection which localizes itself in the urethra; it takes a certain time for inflammation to appear. It certainly has a period of development. There seems to be a condition which requires time for its development. I doubt Dr. Dudley's case—there was no time to produce an inflammation; hence I doubt the twenty-four hour statement. How does practice sustain the observation of this man? The history of homœopathy in gonorrhœa is against anything like prompt cure. We know perfectly well that injections produce a train of distressing symptoms, but they would do the same in urethritis from any other cause. The whole testimony is that when abortive treatment is applied no gonorrhœa follows. If you neutralize the poison immediately, no gonorrhœa takes place; it becomes a simple purulent urethritis. Of course there is a secondary inflammation; it is akin to syphilis which comes from a chancroid. It does not produce genuine syphilis, but a poison which is absorbed to produce a long train of results.

Dr. Bigler: Bastard gonorrhœa can occur in perfectly pure females. It does seem that there is nothing specific in the nature of gonorrhœa, and that we must take the pathology of the old school.

SURGICAL CASES.

BY W. R. CHILDS, M.D., PITTSBURGH.

The following cases came under my observation during my term of service at the Homœopathic Hospital of Pittsburgh, with the exception of the last two:

Fracture of the Jaw.—C. F., age 32 years, model maker. This patient was found lying in one of the alleys of our city, and when found was unable to speak. He, however, wrote the following: "I went into the alley between 12 and 1 A. M. to make water, when I was suddenly attacked by two men who struck me in the mouth with a stone; I did not know anything for a long time, but when I came to my senses I found myself lying on the ground." When brought into the hospital, I found several broken teeth on the right side of the jaw, the maxilla was fractured near the ramus and symphysis. There was a deep gash, two inches long, across the chin, and another one of the same length just below the lower lip, extending through the lip to the teeth. The right eye was discolored, and there was hæmorrhage from the right ear. The flesh wounds were stitched, adhesive plasters applied, and all held in place by means of a bandage. Arnica[3] internally.

Oct. 12th.—Some improvement; discharge from the ear less.

Oct. 13th.—The discharge is diminishing. He complains of frontal headache of a throbbing character, face flushed, temperature 99.5°, pulse 100. Bell.[3] every two hours.

Oct. 14th.—I removed and reapplied the bandage. On account of the disagreeable odor from the mouth, I ordered a wash of permanganate of potash. He continued to improve, and on the 20th I again removed and reapplied the bandage.

Oct. 21st.—The wound on the chin began to suppurate. The dressing was so adjusted as to leave an opening for drainage.

Oct. 25th.—I found the bone denuded of the periosteum, leaving its surface bare and rough. Silicea[6] every three hours.

Nov. 1st.—The dressings were again changed. The jaw was found to be in position, except a slight inability to close it perfectly in front.

Dec. 20th.—I removed a spiculum of bone from the wound on the chin. Steady improvement was manifested from this time until his discharge on the 27th.

In the following spring he had a back tooth on the right side removed, which permitted perfect closure of the jaw.

Sept. 16th, 1881.—I saw the patient within two weeks, and learned that he was in good health, his teeth close firmly together, and he has masticated his food with ease for the last six months.

Brain Clot from Traumatic Injury.—E. M., age 30 years, widow. Admitted November 1st. She was brought to the hospital in a deplorable condition, drunk and dirty. She had been struck on the head with a bowl and knocked down a flight of stairs to the pavement. This had happened some time during the night. The left eye was swollen shut, and greatly ecchymosed. From what we can learn she has led a life of abandonment and debauchery. She was cleansed and put to bed and given arnica internally during the day, and nux at night.

Nov. 3d.—She has lain quiet since admission, but with continued incoherent muttering. Towards evening she begins to be violent and we were compelled to strap her to the bed. During this time she took cimicifuga, but it being without effect we returned to nux vom.

Nov. 4th.—Pulse very weak and temperature below the normal. Arsenicum every three hours.

She died at 11 A. M. of November 5th.

The post-mortem examination held by myself and Dr. Scott, on the order of the coroner, revealed the following condition: Rigor mortis well marked. Found one large and one small ulcer (specific), just back of the sterno-cleido-mastoideus muscle of the left side. Upon opening the cranium we found the anterior portion of the right hemisphere congested, and rupture of several of the veins, together with a number of small clots. Dividing the substance of the brain we discovered a clot the size of a hazelnut within the anterior portion of the right hemisphere. On opening the chest we found the right lung adherent; absence of pericardial fluid; heart normal in size, pale in color, but with a fatty degeneration of the tissues. There were deposits of fat within the right ventricle and both auricles. Both lungs were filled with calcareous deposits. The liver was soft, fatty, and very much enlarged. The kidneys were congested.

Fracture of Tibia and Fibula.—J. Y., middle-aged man, manufacturer. This patient was brought to my office on Nov. 24th, and on examination, I found a fracture of the right leg, near the ankle. He stated, that while walking along the icy pavement, some ten or fifteen minutes before, he had made a misstep and fell against the curbing with the above result. I had

him removed to the hospital, and placed the limb in a fracture-box, packed with bran. On the 30th I put him on the fracture-bed, where extension was made with a pulley and weight, and counter-extension by the weight of the body, the foot of the bed being raised.

Dec. 7th.—The limb was removed from the fracture-box, and lateral splints applied—continued the extension as before. On the 13th the limb was redressed, and an outside splint, with foot-piece applied. On the 21st the limb was encased in a plaster of paris bandage. On the 26th the plaster bandage was removed, the limb washed, sponged with alcohol, well rubbed, and the bandage reapplied. On the 28th the improvement still continued, and as he was anxious to return home on account of family and business affairs, he was permitted to leave the hospital.

Feb. 1st.—I received a letter from him, saying that improvement still continues. In the month of May he was attending to business, and using but one crutch. In August, he used a cane, merely as a protection, complained of nothing, and the limb was of normal length.

Fracture of the Clavicle.—C. D., age 14 years. This boy was admitted to the hospital on Nov. 29th, with a fracture of the right clavicle, the result of a fall from some high shelving. The fracture was dressed with adhesive straps, with pad in the axilla, and the forearm in a sling. As he was unwilling to remain in the hospital, he was sent home, and reported at my office once a week. The same dressing was continued until January 2d, when all of the dressings were removed, except the sling, which was ordered to be continued for some time. No sign of any lapping of the fractured ends. Four months later no sign of the fracture.

Luxation of the Ankle.—E. M., age 22 years, laborer. Admitted Dec. 6th. While at work inside of a cage, repairing an iron furnace, he was thrown to the ground by a sudden tilting. I found a partial luxation of the ankle outwards. I applied an outside splint, and enjoined rest. There was steady improvement, and the patient was discharged Jan. 1st, 1881.

Lacerated Wound.—W. H. S., age 10 years. This boy received a wound from some broken glass, cutting the foot below

the internal malleolus, and severing the posterior tibial artery. The accident happened four weeks before I saw him. A compress had been applied, and the foot kept at rest until yesterday, (June 4,) when he ran out of doors, thus causing the wound to gape open, and producing secondary hæmorrhage from the artery. I found that pressure, about one inch and a half above the wound, caused the hæmorrhage to cease. I applied an Esmarch bandage, from the toes to above the knee, and cutting down, separated the artery from the veins on either side, and ligated. Leaving the wound open for ten or fifteen minutes, I found at the end of this time a renewal of the hæmorrhage, which was supposed to come from a branch of the peroneal artery, which joins the posterior tibial, below the seat of the injury. The original wound was enlarged and a careful dissection made down to the artery, which was found completely severed, and very brittle. After a tedious dissection, we succeeded in lifting the artery from its bed, and ligated it through a healthy portion. The case succeeded admirably, the boy making a perfect recovery.

The question may be asked, why the second operation was not resorted to at first. I answer, because I found that compression upon the posterior tibial shut off all hæmorrhage, and feeling satisfied, from the length of time elapsing since the injury, that it would not be safe to ligate the artery at that point, for that reason I ligated the posterior tibial, as stated.

Lacerated Wound of the Hand.—J. M. D., applied at my office, on Sept. 5th, with a lacerated wound of the palm of the left hand. I found that two branches of the superficial palmar arch were severed. He had slipped and fallen on a stairway, and grasping for support, had struck his hand on the edges of some sheet-iron plates. The arteries were ligated, the wound washed with carbolized water, and the edges drawn together and fastened with silver sutures. The hand was dressed with absorbent cotton, and the fingers partially flexed and held in place by a bandage. The ligatures came away on the eighth day, and the patient was discharged on the twelfth day.

Dr. Morgan related the case of a Confederate officer, wounded in the peroneal artery, where, in order to reach the artery, a portion of the tibia was cut out, and afterwards replaced.

VILLOUS TUMOR OF THE RECTUM, WITH OPERATION; DEATH FROM A SCIRRHOUS TUMOR OF THE COLON; POST-MORTEM.

BY J. W. DETWILLER, M.D., BETHLEHEM.

April 13, 1875. L. W., æt. 44, laborer, sent for me to reduce a villous tumor of extraordinary size which descended from the bowels during stool. With considerable difficulty I succeeded in returning it. For years he had, as he supposed, suffered from hæmorrhoids; during the last two years the tumor descended while in the act of defecation, and on the slightest exertion, unfitting him for work, and during the last few months he was unable to return it without assistance. There was looseness of the bowels, accompanied with blood, at times, and constant discharge of slimy mucus. He looked prematurely aged, anæmic and emaciated, with a countenance suggesting a malignant growth. The tumor, as it protruded from the anus, was about the size of a new-born child's head, connected with the mucous membrane by a short, smooth, broad pedicle the thickness of two fingers, about an inch and a half up the rectum to the left side. Its structure was soft, spongy and exceedingly vascular, bleeding easily, and having a distinct pulsation. It consisted of a lobulated mass with numerous papillæ, villus-like projections of a deep red color, covered with glairy mucus, in structure resembling a cauliflower. After ligating a number of the projecting processes, disintegration took place in a few days, thereby materially lessening the size of the tumor and enabling the patient to return it himself, until March 6th, 1876, it having grown to its former size, and his health failing, I deemed an operation advisable. Aided by an assistant, the patient was placed under the influence of ether. Drawing down the tumor, I passed a strong, double ligature through the centre of the pedicle close to the rectum, tying it on each side. Fearing the ligatures might slip, I removed only a portion of the tumor, allowing the rest to slough away, which it did between the third and fifth days; on the ninth day he left his bed and attended to his work without any inconvenience. Some months later I was sent for, found him in bed with all the symptoms of obstruction of the bowels, tympanites, hiccough, eructations, nausea and vomiting, strength failing

rapidly, mind wandering, coldness of body, pulse small, frequent and wiry, colicky pains, frequent straining at stool with tenesmus; distension more marked on the left side of the abdomen. Upon examination I found a hard body in the region of the descending colon, and sigmoid flexure, which was the cause of all these serious symptoms, and believed death imminent. Upon calling next morning I was surprised to find my patient much improved. During the night he had had a sudden and copious evacuation from the bowels, containing pus with some blood; the swelling was much diminished in size. He was soon able to leave his bed, but had frequent attacks of colicky pains with rumbling in the bowels, vomiting, and diarrhœa, at times slightly bloody, with tenesmus. The tumor in the region of the sigmoid flexure gradually increased in size until Dec. 20th, 1879, when he died, with the symptoms of obstruction of the bowels as already described. The autopsy was made twenty-four hours after death. Found the body emaciated to an extreme degree; abdomen tympanitic, when opened emitting an offensive odor; all the organs of abdomen in a healthy state except the sigmoid flexure of the descending colon, which was obstructed by a fibroid tumor, leaving, in the centre, a narrow passage through which, with trouble, I passed a small bougie. The descending colon was distended with gas and was four and a half inches in diameter. There was no disease of the rectum.

Villous tumors of the rectum are of rare occurrence. I am not aware that they are mentioned in any American work, or that they have been met with by any of our surgeons except Prof. Agnew, who wrote to me that he had operated upon only two cases. Allingham, surgeon to St. Mark's Hospital, England, in his admirable work on Diseases of the Rectum, makes mention of only eight cases that came under his observation, and states that he is not prepared to pronounce the growth malignant. The cancerous cachexia which was so marked in my case may have been owing to the presence of the scirrhous tumor of the colon, which was not noticed at the time of the operation.

Dr. C. M. Thomas: I had one such case, although I believed it was not cancerous in character, but glandular. It gave no annoyance, except from mechanical obstruction. The authorities believe these tumors to be glandular in structure.

RAPID LITHOTRITY.

Removal of 1,875 Grains of Uric Acid Calculus in Two Sittings.

BY CHAS. M. THOMAS, M.D., PHILADELPHIA.

Probably no established surgical procedure has ever undergone a greater revolution, than has lately taken place in the crushing operation for stone in the bladder, and all through the introduction, by Prof. Bigelow, in 1878, of his so-called Litholapaxy.* In point of fact, indeed, this should be looked upon as a new operation in surgery; for, although some have claimed that it is only a revival of the procedures of Heurteloup,† Cornay, (1843,) Amussat,‡ Cover and others, still their operations were so limited and defective, both in performance and character of instruments employed, and based upon such entirely contrary views with regard to the tolerance of the urinary apparatus, as to scarcely merit a comparison with what Prof. Helmuth, at the last meeting of the American Institute of Homœopathy, insisted upon calling "the American operation."

Thus, by the older method, the removal of any but the smallest stones, was the work of weeks and months, while by the modern, it is reduced to hours and minutes. Under the former, instrumentation within the bladder was restricted to a few minutes duration; under the latter, hours may be consumed at the work with impunity. Ordinarily, the fragments made by the lithotrite are left within the bladder to await gradual expulsion by natural means, or, at most, but timidly and imperfectly removed by instruments, while by the new method, the pieces are boldly and entirely extracted by the operator, thus relieving nature of all concern in the matter. Again, in Bigelow's method, during the mechanical evacuation, catheters are passed through the urethra, of a calibre before quite unheard of. Finally, the crushing of a stone by this method is not contra-indicated by any pathological conditions of the urinary organs, which is also a point in marked contrast to the old, or "many sittings" method.

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*American Journal Med. Science, Jan., 1878.

† Lithotripsie sans fragments au moyen de deux procedes de l'extraction immídeate, etc., 1846.

‡ Memoir sur la Lithotritie en une seule sèance, 1853.

Up to within a short interval, about 130 cases of this operation have been reported in Europe and America,* with a mortality of about six per cent., which, as compared with the death rate in ordinary lithotrity of seven per cent., is a most remarkable showing, when it is borne in mind that many of these cases included stones in size far beyond any ever attempted under old lithotrity.

And more than this, with such a record, we may not unreasonably expect to find the domain of lithotomy restricted, in the adult, to cases of stones of very great size. Indeed, since a stone of two and one-fourth inches in diameter has already been successfully dealt with by Bigelow (one inch being the limit for the old operation), it is fair to suppose that the time is not far distant when the performance of lithotomy upon the adult will be an occurrence of extreme rarity.

The following case, which is the third in which I have used Bigelow's method, I offer for what it is worth, as a contribution to the now rapidly increasing experience in this operation.

No case, to my knowledge, has yet been reported which better demonstrates the advantages claimed for the new operation, viz.:

First. The ability to successfully deal with very large calculous accumulations by crushing.

Second. The tolerance of the bladder to prolonged manipulation.

Third. That the presence of irregular fragments within the bladder is by far more harmful than prolonged instrumentation.

It will be seen that in the following case there were removed in two sittings, of a total of five and one-third hours, 1,875 grains (dry weight), while the largest yield reported by Bigelow,† was 1,802 grains in three sittings, of a total eight and one-half hours; 124 grains of which were passed naturally after the operation. In my case, the few crumbs passed afterwards were not collected.

In my second sitting, over 1,300 grains were removed, making several hundred grains more than the result of any single sitting I know of. The only case of which I have knowlege in which the total amount of stone obtained was greater than my own, is

*The most complete collection of cases is given by Keyes, in the *American Journal Med. Science*, April, 1880.

†*American Journal Medical Science*, 1878.

the very remarkable one reported by Thomas Smith,* of London, in which four ounces, or 1,920 grains of stones were washed out in forty-four minutes. Three ounces of this amount, however, were evacuated without the aid of a lithotrite, the calculi being quite small.

Case—A. G., age 66 years, born in Pennsylvania, and for many years a resident of Philadelphia, had always enjoyed good health, up to 1874, when, following a fall with his belly against the back of a chair, his bladder became irritable. In the latter part of 1874, he passed a small stone from the bladder, and again in January, 1875 ; the second stone following an attack of renal colic. From that time on, he was incapacitated for all work (he had previously kept a restaurant) and suffered continually from the ordinary symptoms of stone.

In the summer of 1875 I explored his bladder, at the request of Dr. W. H. Bigler, who was then in attendance. Found, and grasped with the lithotrite, a stone of about one inch in diameter, and advised operation, but the patient being unwilling, both Dr. Bigler and myself soon lost sight of him.

In July, 1880, his wife called upon me, stating that his society required a certificate as to his condition, and requesting me to give it.

For this purpose, I again examined him, with Dr. Thomas Smith, who was then in attendance at that time. I very readily satisfied myself of the presence of at least two good sized stones.

Operation was again proposed and again refused.

In May of the present year, however, he applied to me for relief, at any risk. On the 26th of the same month, I operated according to Bigelow's method. The details of the case I take from the record, kept at the time, by my private assistant, Dr. P. O. B. Gause. Assistants at operation were Drs. Burnham and Gause. Patient etherized by Dr. Gause, with some difficulty, and remained rigid throughout anæsthesia. The hips were elevated on a hard pillow, and the meatus urinarius divided to allow more freedom in introduction and motion of lithotrite and evacuating

Lancet, 1880.

tubes. 544 grains of uric acid calculus fragments were removed by Bigelow's evacuator.

The operation lasted two hours, but was considerably prolonged by a leak in the evacuator, at the joining of the rubber ball with the metal castings. Owing to the annoyance caused by the churning of air in the bladder, the operation was discontinued, although much stone could still be felt in the bladder.

During, particularly, the latter part of the operation, there was considerable tinging of the wash water with blood.

Ordered patient wrapped in blankets, with hot bottles to extremities, and flaxseed poultice over hypogastrium, to drink freely of Vichy-water and flaxseed tea, and take aconite θ every hour.

From time of operation, for several days, everything progressed favorably, there being no elevation of temperature or pulse, and no disturbing symptom, except an inability to pass water (which was drawn with a catheter regularly every five hours) and an excessive weakness increasing about the fourth day, accompanied by a deposit of bad smelling muco-pus in the urine, which had before been tolerably clear.

Although the bladder showed marked signs of severe cystitis, from this time there was little or no fever, and as the prostration was so great, a second operation was postponed, from day to day, mainly at the patient's request.

On the 12th of June the quantity of putrid pus in the urine had increased so materially, and the pains in the bladder had become so excessive, that a second sitting was consented to.

June 12th.—The patient is much reduced in weight and strength, unable to turn in bed without aid, passing large quantities of exceedingly offensive muco-pus with urine, in spite of frequent washings of bladder with strong solution of boracic acid and water. Temperature 99.5, pulse 90, tongue coated and dry, no appetite. Etherization again troublesome, and not accompanied by a thorough relaxation. Drs. Strickler, Bigler and Gause acted as assistants.

At the end of three hours and twenty minutes no trace of stone could be detected, either by lithotrite or evacuator.

During the operation there was considerable bleeding from the bladder, but no clots or shreds of tissue appeared in the wash

water. Some difficulty was experienced in catching the last fragments, owing to enlargement of prostate and irregular bladder walls.

Patient rallied well under the same general treatment as after the first sitting. For three days there was a slight bloody tinge to the urine. Temperature at no time rose above 100.5°.

On the 20th of June, eight days after operation, urine perfectly clear, and evacuated every six hours by catheter. Temperature and pulse normal, sleep good. Some soreness was still felt in deep urethra, but none in bladder. General prostration was rather marked, but not so great as after first operation. The fragments of stone, when dry, weighed 1,331 grains.

On August 22d I made a very careful exploration of bladder and found no sign of stone.

Remarks.—The lithotrite upon which I mainly depended, and which I have principally used in my other operations, was a moderate sized Thompson instrument, made by Meyer & Meltzer, of London, with a female blade fully fenestrated. With the exception of appearing rather weak for large, hard fragments, it has given me greater satisfaction than any of the instruments having a partially fenestrated or solid female blade, especially in the matter of clogging of the jaws. For small fragments, especially during the latter part of the operation, in picking up pieces behind the prostate, I made use of a smaller instrument with solid female blade, made by the same makers.

My evacuator, made by Tiemann, of New York, was of the Bigelow pattern, and although provided with a small tube near the top of the bulb, for relief of air and changing of water, I was not entirely able, even when it did not leak, to prevent the entrance of air into the bladder, thus lessening the efficiency of the evacuator.

The only form of catheter used in this case, was a curved one of No. 27, Charriere, the straight one, otherwise preferable, having a calibre of thirty-one, being rather too large for easy introduction.

From the first few days following the operation, my patient presented no bladder symptoms, except a moderate catarrh, and an inability to entirely empty the bladder, except by the catheter,

both of which conditions still exist at the present time, and are due, most probably, to senile bladder changes and hypertrophied prostate.

A rather singular feature has manifested itself since he has been walking about, viz., a moderate œdema of the lower extremities and back, combined with great weakness of the legs and a tendency to vertigo. Careful and repeated examination of the urine shows normal specific gravity and no albumen or other abnormal changes.

Dr. Detwiller: The paper is a very interesting one. I would ask whether the instrument could be used in a mulberry calculus?

Dr. C. M. Thomas: I do not think it ought to be used in mulberry calculi, but several stones of this character have been crushed.

TREATMENT OF CHRONIC ULCERS.

BY L. H. WILLARD, M.D., ALLEGHENY CITY.

Our purpose in presenting a paper to the Society at this time has been simply to record our experience in the treatment of so-called chronic ulcers. Many of the well known forms of ulceration assume a chronicity from want of proper treatment, either internal, or local and mechanical. Of these forms we have the varicose, œdematous, exuberant, neuralgic and inflamed.

The first is known by the condition of the veins which accompany it, and occurs almost without exception on the lower extremities. The ulcer is cured by the removal of the causes giving rise to it. It must be understood, however, that an ulceration is not a necessary result of a varicose condition, and that an ulcer may in some cases have preceded the varicose condition and may not be affected by this condition beyond the fact that the hindrance in the circulation set up by this varicosis retards the healing process.

The œdematous form is not very frequent, and is recognized by the pale, soft, easily-broken granulations, together with the presence of the general œdema of the part in which the ulcer occurs.

The exuberant ulcer is known, as its name implies, by its excess of granulations, without any assignable cause. This ulcer should be carefully separated, however, from the granulation occurring in cancerous conditions, the diagnosis of which may at times rest on the quality of the granulations, in which case "the former is soft, fleshy, easily yielding to pressure, while the latter is hard or firm, and fixed on a hard basis."

In the inflamed variety we have all the signs, more or less marked according to the degree of severity, of acute inflammation.

The neuralgic form is often associated with the inflamed variety, or may exist by itself. It receives its name in a measure in consequence of the pain being so much more acute than the objective symptoms seem to call for, as for example in so-called irritable ulcers or fissures of the anus. The special irritability of these neuralgic ulcers is ascribed by Mr. Hilton to "the exposure of a nerve on the surface of the ulcer, the sheath of the nerve fibre having been destroyed and the end of the true nerve-fibre remaining denuded."

Our reason for thus briefly summarizing these various ulcers is for the purpose of a comparison with the chronic, indolent, atonic, or callous ulcer. The first are amenable to specific homœopathic treatment with light cauterizations, bandaging, strappings, slight incisions (fissures), etc., as accessory measures. In the latter form internal medication is of no avail whatever, and only radical or severe operative measures are of service for promoting a cure. It will only be necessary to describe this form of ulceration in the briefest terms. Its usual location is on the leg; its abrupt margin, overlaid with whitened, callous or thickened epidermis, its irregular shape, and its deep, pale or dusky colored base, without any apparent life or activity, are characteristics well known to every surgeon. The tissue in these ulcers is to all intents and purposes dead, so far as molecular motion is concerned. No medicine, in my experience, can impart any life to this dead tissue. The general health and condition of the patient in these cases are, as a rule, most excellent. The whole trouble for the time being is a local one, and the best manner to promote a cure in these cases is to obtain reaction through stimulation by the galvano-cautery, or by covering the ulcer with sound tissue drawn from either side

of it, thus providing a covering, while the reparative action is in progress, and you also assist nature by giving her a much less extensive but a more active surface to cover.

Without stopping to advocate or condemn the use of the various caustics, stimulating ointments, blistering, etc., as mentioned in the works of the leading surgeons of this country or Europe, we will give in a few words the results of the two operations, viz., the galvano-cautery and the side incisions, which have come under our own observation.

One of the cases was that of a young man who was injured in the Edgar Thomson Steel Works by hot metal falling upon his leg, causing a wound about six inches long upon the outer edge of the left tibia, and another about three inches long a little to the left and below the first. He recovered from the constitutional effects of the injury without any untoward symptoms. He then applied to the hospital and was admitted to the wards. He received as internal treatment puls., arsen., lach., etc. The external treatment consisted of bandaging, strapping, poultices, cauterizations, Labarraque's solution, and skin grafting *pro re nata.* At the end of three months the condition was unchanged, and a more radical treatment was adopted. This treatment consisted in the use of the galvano-cautery. Two applications were made at an interval of a few days. The ulcers were seared around the edges and deep into the central portions. The outer and smaller sore took on reparative action after the first application, and progressed steadily to recovery. The larger ulcer decreased a quarter of an inch in diameter within a week, and continued to diminish after the second application. The ulcer was more than one-half covered when the patient secretly left the hospital.

In this case all the ordinary forms of treatment had been persistently and faithfully tried, but without avail. As already intimated, nothing but a thorough cleansing of the parts, together with the application of an active and powerful stimulant, will promote healing action in this form of ulceration.

In another case, in a man of advanced age, the ulcer was of an oblong shape and situated on the anterior surface of the tibia, and had the appearance of a badly nurtured wound, without any activity. It had followed a slight abrasion of the skin of this

part. All sorts of salves and ointments had been used, but the sore had increased, until at the time of operation it was surrounded with a callous edge and was discharging a small quantity of ill-looking pus. There were a few small granulations in the centre of the ulcer which were subject to injury by contact and were destroyed almost as fast as formed. The patient was a laboring man and compelled to be on his feet. A poultice was applied, which cleaned out the sore and reduced the inflammation. Incisions were then made on either side and parallel to the edges of the ulcer, and the callous edge cut through above and below. The severed edges were then united over the centre of the ulcer; the healing action was prompt, and the resulting cicatrix small. The portions exposed by the removal of sound tissue also healed promptly. The cure was permanent. While you may be able, by the ordinary means, to cause a cicatrization of the ulcer in these cases, yet, in consequence of the parts being scantily furnished with subcutaneous and muscular tissue and constantly exposed to injury, relapses so frequently occur that finally the diseased tissue ceases to attempt any reparative action and a chronic state of ulceration is induced.

The Committee on President's Address reported as follows:

REPORT OF THE COMMITTEE ON PRESIDENT'S ADDRESS.

To the Homœopathic Medical Society of Pennsylvania:

The Committee to whom the President's Address was referred respectfully recommend:

First. That a vote of thanks be and is hereby tendered our worthy President for his able address, and that we hereby request a copy of the same for publication.

Second. That we recommend that the restriction in our By-Laws in reference to the President's Address be made to read as follows: "He shall deliver an address, at the opening of the session, on the progress of medical science during the year past, and make such suggestions as he may deem necessary for the Society to take action upon during the session."

Third. That the recommendation as to "State Board of Health" be respectfully referred to the Committee on Legislation.

Jos. E. Jones, M.D.,
J. B. Wood, M.D.,
Hugh Pitcairn, M.D.,
Committee.

REPORT OF THE BUREAU OF MATERIA MEDICA.

Dr. Chas. Mohr, chairman of the bureau, presented the following papers, which were accepted and referred:

China Officinalis and Chininum Sulfuricum, by Ad. Lippe, M.D.

Verifications of Unverified Symptoms in Allen's Encyclopædia, by C. Mohr, M.D.

CHINA OFFICINALIS AND CHININUM SULFURICUM.

BY AD. LIPPE, M.D., PHILADELPHIA.

The study of china officinalis as a remedial agent leads the homœopathic student back to the origin of our healing art and to the development of its tenets.

In 1790 Dr. Samuel Hahnemann was engaged in translating Cullen's Materia Medica, the text book of materia medica of that day. Cullen evidently was wiser than are the men of the common school of our day. He evidently did not claim that cinchona was or ever would be a specific for a specific disease, viz., intermittent fevers. We find Cullen saying in regard to it (vol. ii, page 92): "And whilst it (cinchona) is allowed to be a very safe and very powerful remedy, the only question which remains respecting it is, in what circumstances it may be most properly employed." Hahnemann then and there, at that hour of midnight, contemplated the possibility of satisfactorily solving this momentous question, *i. e.*, the circumstances under which this

powerful remedy may be most properly employed. It was a great question, and the great Cullen showed the greatness of his mind by admitting, with the asking of this question, that cinchona was not a specific remedy for intermittent fever, and he admitted the necessity of finding in some manner what the circumstances were under which it would be most properly employed, or using a more modern phraseology, what are the indications for the proper use of cinchona. The common physician of modern days is wiser, and notwithstanding the boasted progress of the allopathic school, proclaims boldly and unblushingly that cinchona, or now the modern chininum sulf., is a specific for a specific disease, and notwithstanding the frequent general failures to cure, he does not ask a question, but keeps on his mad course, injuring the sick. Hahnemann solved the question. He prepared an alcoholic tincture of Peruvian bark, and took it in very small doses. They produced on him and on others their sick-making properties, and Hahnemann found that the symptoms so produced resembled closely the symptoms present in cases of intermittent fever cured by cinchona.

In the admirable preface to cinchona in vol. iii of the Materia Medica Pura, Hahnemann says, in a footnote on page 99: "In 1790 I made the first pure experiment on myself with cinchona bark, in order to learn the sick-making effects of this bark, resembling the intermittent fever, and this first experiment opened to my vision the first light of day which gradually became the brightest sunlight, showing me the new healing art, and that medicines can only cure diseased conditions if they resemblè the symptoms which the curative medicine is capable of producing on a well person." Hahnemann contends, then, that all the thousand years of old prejudices and preconceived opinions of medical men, and even the bitter vituperation of these persons, will be no more successful to quench this great beneficial and undeniable truth than were Riolan and his gang able to extinguish the discovery of the circulation by the immortal Harvey. Both opponents to these great truths used the same weapons; they declined to resort to the true mode of inquiry, declined to make the precise experiment of testing these truths, by making it as the discoverer directed them to make it; they relied on abusive language and the

claim of antiquity of their errors. As Hahnemann's experience had shown him that the two most abused and injuriously applied drugs were opium and cinchona, as administered by the common school of medicine, he was still more anxious to solve the question asked by Cullen, and his experiments were many.

We also find Hahnemann gives an explanation in this preface how he came to lessen and diminish the dose; this was in 1825. He then gave the eighth (quadrillionth) potency and says, "No preconceived opinions or notions induced me to diminish the dose. Manifold experiences and faithful observations caused me to diminish the dose gradually; experience and observation demonstrated the fact that the larger doses, even when they cured, acted too powerfully, more so than was necessary to accomplish a cure. These smaller doses were sufficient to cure, and did not, like the larger ones, retard the cure." Hahnemann further says that cinchona does not frequently correspond in its sick-making powers with natural diseases, that this bark is therefore not often indicated, but that, when homœopathically called for, one single, small dose will be found to be sufficient to cure. He gives an accurate picture of the unfortunate person who has taken large and repeated doses of the not indicated cinchona for the suppression of the intermittent fever, which suppression, leaving the sick much sicker, is called a cure by the common school of medicine. He describes the sufferer thus, and says: "Look at his ash-colored, bloated face; how lustreless are the eyes; look how oppressed his breathing; how hard and bloated the upper abdomen; how swollen the thighs; how poor the appetite; how disagreeable his taste; how all the nourishment lies heavy in the stomach and oppresses him; how undigested and unnatural the alvine evacuations are; how restless, full of dreams and unrefreshing the sleep; look how feeble, how joyless, how depressed, how irritably angry or stupid he crawls along." He then asks, is that health? It is not intermittent fever, but it is not health; it is a disease worse than the previous, now suppressed or suspended, disease; it is a china cachexia which must be a worse disease, else the previous one could not have been suppressed or suspended by it. Should the organism recover from this new disease after the lapse of weeks, then we see the original disease return in an aggravated form. If, then,

larger and longer continued doses of cinchona are administered, they leave the sick much sicker after again suppressing the original disease and a chronic china cachexia is the result. The most absurd use of the bark is made when administered as a tonic for weakness. "How," asks Hahnemann, "can these thoughtless men expect to cure a weakness which depends entirely on the disease weakening the sick? if the disease is cured the weakness ceases." And now he points out in what kind of weaknesses cinchona cures; in that weakness caused by loss of fluids, by hæmorrhages, frequent venesections, great flow of milk during lactation, by flow of saliva, by frequent seminal losses, great and profuse suppurations, by perspirations and by weakness caused by frequent laxative medicines. Hahnemann gives us also in this excellent preface some very characteristic indications for this remedy; in some cases of diarrhœa resembling those produced by it in its primary action in large doses; in some cases of humid gangrene on external parts; in too easily and frequent diseased irritation of the genitals, demanding seminal discharges; he has also frequently cured with one single smallest dose of cinchona, attacks of pain caused only by the touch, or slight motion, of the part, gradually increasing to a terrible height, very similar to the pains cinchona is able to produce; this remedy will hardly ever become curative if the similarly produced disturbances of the nightly rest are not present; in seldom occurring suppuration of the lungs (especially with stitches in the lungs) almost only caused by external pressure; in some cases of icterus; in intermittent fever when the symptoms are similar, and then the small dose should be administered after the paroxysm has passed by.

In modern days chininum, the alkaloid of cinchona officinalis, has taken the place of cinchona; much more powerful in its effects it has become also much more injurious in its general and injudicious use. What Hahnemann said about the abuse of cinchona in 1825 may be well repeated in 1881, when we see this potent and, if properly administered, health-restoring remedy so shamefully and indiscriminately used, to the great detriment of the sick. The first provings of this remedy were made in 1838–39, and we have been able to learn its curative powers when homœopathically indicated and administered in small doses. Not only have

homœopathists raised their voice condemning in strong terms the abuse of this alkaloid, but the very best men in the allopathic school have sustained us in our warning declaration. For instance, the late Dr. Samuel Jackson, a highly gifted allopathic physician and for many years Professor in the University of Pennsylvania, devoted every year one of his lectures to dwelling upon the abuse of quinine; he stated plainly that it was an injurious practice to begin the cure of intermittent fever by administering massive doses of this drug; he plainly stated that the suppression (suspension) of the attacks of chills and fever following its administration, was never to be considered a cure; that in fact the patient was much sicker after his chills and fever were suppressed by quinine than he was before its administration; that he had in addition to his former, now suspended disease, also a quinine disease, worse than the former disease. Was Samuel Jackson more successful in persuading medical men to desist from their nefarious practice than was Samuel Hahnemann? The same warning voice came from eminently intelligent and observing medical men, irrespective of other principles on which they differed. Cullen, Hahnemann and Jackson did not consider china officinalis or chininum sulf. a specific for intermittent fever. It was left to Hahnemann to show that other remedies also cured intermittent fever; that they did so because each of them was capable and had caused, on the healthy, symptoms resembling intermittent fever; that each of these remedies caused a semblance to intermittent fever peculiar to itself and different from all and every semblance to intermittent fever caused by other remedies. Hahnemann thereby showed to the world the possibility to practically demonstrate the applicability of the law of the similars for the cure of the sick. He did not only direct the attention of the medical men to the correctness of the law of the similars, but he also demanded that the dose should be a small one if the best results were to be produced. Hahnemann was a very close and accurate observer, and says that china will cure better and quicker in smaller doses. It is not only on this occasion that this great observer alludes to the very necessity to administer dynamized drugs, but we find him dwell on this very essential point, on this dynamization necessity, on almost every page of his writings.

With his habitual clearness of presenting his convictions, he says that under the universal and fundamental law of the similars the undynamized drug, in the present case cinchona, acts too powerfully, even if it cures; it acts more powerfully than is necessary, but that the smaller doses are sufficient to cure, and do not, like the larger doses, retard the cure.

The main question asked by Cullen: "In what circumstances may china be properly employed?" was answered by Hahnemann when he proved cinchona on himself, and when others proved it afterwards. Hahnemann gave us the most characteristic indications, and they were: thirstlessness during the cold and hot stages, thirst only during the hot stage, when it was accompanied with stinging over the whole body; the cold and hot stage always followed by profuse perspiration with thirst. The characteristic, or as they may well be called, the guiding symptoms of cinchona, as well as of other remedies, were principally observed by men who were guided by the teachings of the Master in their practice of homœopathy. Men who departed from the teachings of Hahnemann, and supposed themselves possessed of a superior ability to practice our healing art, furnished few or no guiding symptoms just in proportion to their departures from the teachings of Hahnemann. After chininum sulf. was also proved, and after the practical experiments developed its guiding symptoms, it became evident that the latter remedy differed in its guiding symptoms very much from the former. As there was present great thirst during all the stages of the attacks and also a great tenderness of the spine, both were contra-indicated if the profuse perspiration was absent.

Hahnemann deprecated the use of larger doses, and nowhere in his writings can be found an excuse for men who this day, professing to practice homœopathy, resort to large, massive doses of chininum sulf. If an unfortunate individual, by stress of circumstances, commits the error of administering such massive doses because he knows not how to select and use the similar remedy, he deserves fully our commiseration because he erred. We may try to show him how to avoid such blunders in the future; we may call his attention to the false position he took when he abandoned the principles of our healing art only to fail,

and enable him to return to the application of a truly homœopathic remedy. If, however, such men proclaim to the world and to the sick that they, as homœopathists, do prescribe these massive doses under the full sanction and under the rules laid down by the founder of our school; or still worse, if such absolute falsehoods are taught in our professedly homœopathic colleges; if the administration of massive doses of quinine is not only sanctioned but imperatively commanded, as for instance, when it is found in a college note-book that Professor John Ellis, whilst in Cleveland college, in the treatment of congestive chill advised that twenty-five to thirty grains of chin. sulf. be given during the intermission to prevent a return, or to rescue the patient from death—maintaining, not that quinine *may be given* in such cases, but that it *must be given;* and if other teachers in other professedly homœopathic colleges have done no better, can these men escape just censure and public condemnation? In one homœopathic college, at least, in New York, one of the professors (Dr. T. F. Allen) with commendable honesty severely denounced the administration of quinine in massive doses, not only as unhomœopathic, but as absolutely pernicious, and declared at the same time that he was willing to suffer himself the pangs of intermittent fever for an indefinite length of time until finally and permanently cured by strict homœopathic treatment, rather than give up his principles and suppress or suspend the paroxysms by massive doses of quinine.

If the propositions made in this paper are correct, it is obvious that quinine should never be administered as a homœopathic remedy in massive doses, either for the supposed cure of intermittent fever or for any other purpose. If cinchona or quinine is homœopathic to a case of intermittent fever, one single dose of the dynamized drug, taken after the paroxysm has passed by, will be found an all-sufficient dose. If these remedies are not homœopathic to the case then the massive doses cannot act curatively, the quinine cachexia must follow the suppression of the paroxysm, and the deceived sick is infinitely sicker after such brainless dosing has been inflicted on him than he was before. Is not such a pitiable picture presented at this very time to our great nation, when the nation's patient sank under the scientific

administration of quinine and morphia these eleven weeks? And does this lamentable exhibit of medical ignorance and blundering not open the eyes of at least our branch of the medical profession? Does not this sad ending show the correctness of all Hahnemann ever said about even the less powerful cinchona? Should we not, one and all of us, forever denounce the administration of quinine in massive doses?

Every individual case of intermittent fever requires a remedy adapted to it under the homœopathic healing art, which can be found if we seek for it.

As one of the early pioneers, I now offer my testimony. More than forty years ago, a stranger and friendless, with full faith and reliance on Hahnemann's teachings, fully convinced that success was within reach if his precepts were only followed, the young physician set out to cure the sick. Shortly after I had opened a very modest office in Reading, intermittent fever appeared as an epidemic among the laborers on the Reading railroad, which was then building between Reading and Pottsville. At first, a few stragglers came to town and accidentally called on me to cure them. Homœopathy was then not known to these people even by name. These stragglers recovered while the quinine-eaters continued to suffer. As a natural result, the afflicted flocked to the dispenser of a curative remedy, and they kept on coming by hundreds. Rarely had any of them to come twice or three times. They all received strictly homœopathic treatment; the principal remedies were nux v., arsenicum, natrum mur. All remedies were given in the thirtieth potency. Sometimes other remedies, bell., pulsat., etc., had to be selected, but *never* did it enter the mind of the young beginner to resort to other than homœopathic treatment. Even my allopathic colleagues were astonished when they perceived the beneficial effects and the universal success of the small doses.

The same success was obtained in later epidemic intermittent fevers, and from these observations I came to the same conclusion which others arrived at under similar circumstances, that we have no occasion ever to deviate from the strict homœopathic practice, either in the cure of intermittent fever or any other disease. The testimony to that effect is overwhelming.

On the question of the use of quinine in massive doses, the profession has expressed more diversified opinions than on any other question. That the homœopathic and allopathic school should widely differ is very natural, as the very foundation of Hahnemann's inductive method was laid on the mode by which he solved Cullen's interrogation. That among the allopathists, from Cullen down to Jackson, diversified opinions should be expressed, only shows that even among these men are to be found honest thinkers who unhesitatingly express their own opinions, held adverse to the school they still belong to. That among the professed homœopathists such a diversity of opinion can exist is inexplicable. How men who profess to be homœopaths can, under any plausible pretext, advocate the use of quinine in massive doses and that, as they claim, in harmony with our law of cure, and sanctioned by the founder of our school, is as yet by them unexplained. If they even, as is now the custom, claim the freedom to apply the law of the similars, which is all they imagine is necessary to believe in when they join our societies, how they can reconcile the use of massive doses of quinine for the cure of every case of intermittent fever is past comprehension; may be these men can explain their illogical proceedings. Can the homœopathic school escape the just reproach our opponents heap upon it, when they expose our shortcomings? When they find men who belong to our societies, men who are public teachers and editors of homœopathic journals, advocating the use of massive doses of quinine as the proper and specific remedy for intermittent fever, they have a good case to present before the public; they may well say that homœopathy is a failure, an illusion, nay, a fraud; that the professing homœopathists have utterly abandoned all the tenets of the school taught by its founder, and this day resort to such doses, to just such treatment as this founder condemned and proved to be pernicious at the very outset of his arguments against the common school of medicine. While our adversaries know full well that the founder of our healing art strictly carried out the precepts he advocated, that all and every one of the early pioneers did the same and did it successfully, they yet take advantage of men who are engaged in advocating a great departure from the principles and practice of the founder

of our school and his disciples, and who for, as yet, unexplained reasons, go back to the use of massive doses of a so-called specific for a specific disease, which is to all intents and purposes the prerogative of the common school of medicine, and not tolerated by our healing art. How long will we have to endure the taunts of our adversaries and their charges of our dishonesty?

History repeats itself, and the same reasons assigned by contemporaries of Hahnemann for not accepting all his teachings are now repeated, *ad nauseam*. History shows that our benign healing art spread rapidly and gained ground wherever it was represented by honest, conscientious men who followed the teachings of the Master. History shows also, that from Hahnemann's day till the present time, the men who advocated various departures from the teachings of the Master, were, to put it mildly, less successful than the consistent healers. The great battle fought by Hahnemann and his followers against the combined allopathic school, is a thing of the past, and the historian will have to put it on record that, at least in this country, we, as a school, enjoy all the rights, privileges and immunities of the old school. The early pioneers fought that battle; the present generation may listen to the relation of this fight as uttered by the surviving veterans, and a future generation will take up the tattered battle flags under which the old pioneers fought and gained their great victories, and drop the newly proposed flag on which is written: *Quinine a Specific!*

VERIFICATIONS OF UNVERIFIED SYMPTOMS IN ALLEN'S ENCYCLOPÆDIA.

BY CHARLES MOHR, M.D., PHILADELPHIA.

As a member of the Bureau of Materia Medica, and chairman thereof, I believed I might do most effective service to the members of our Society and the profession at large, by endeavoring to obtain from as many practitioners as possible, verifications of *produced* symptoms found in Allen's Encyclopædia that had not yet been published as *clinically verified*. I was impelled to do this by reading a very suggestive article on 'A Condensed Materia Medica,' by

S. A. Jones, M.D., published in the July *Hahnemannian Monthly*, in which the writer says: "*not* all the verified symptoms are distinguished by a star in Allen's Encyclopædia. Every practitioner who faithfully digs out from the materia medica a remedy for a given case, finds new verifications, as did the faithful few who, in early days, established our school on the adamant of eternal truth. Oh, for men like them to-day! Men possessed by a conviction; men to whom no labor was too arduous, and no price too great, if only the eternal verities would crown the end!" Thought I, now that Allen's Encyclopædia is complete, and we have his Index, perhaps I may inaugurate a custom in bureau work; the little I can accomplish in a month may stimulate the Bureau of Materia Medica for the ensuing year to begin immediately after its organization has been effected, to work in the direction indicated for a whole year, and then—happy thought—what a glorious showing there will be at the meeting in 1882! I therefore addressed to two hundred colleagues, whom I knew possessed Allen's Encyclopædia, the following note, viz.:

Philadelphia, August 15*th*, 1881.

Dear Doctor:

Will you be good enough to inform me of any and every *produced* symptom, not marked *verified* in Allen's Encylopædia of Pure Materia Medica, that you have verified in practice, and how often? A statement of the concomitant symptoms, as well as of the pathology of cases, is very desirable.

The information thus obtained I purpose making use of in a paper to be submitted by the Bureau of Materia Medica of the Homœopathic Medical Society of the State of Pennsylvania, at its annual session, to convene at West Chester, in September next.

An early answer will be expected, and any contribution you may be able to make will receive due acknowledgment in the report.

Yours fraternally,

C. Mohr, *Chairman*,
555 North 16th Street.

I soon received various responses, most of them to the effect: "Thank you, my *dear* doctor; 'I would if I could, but I am not able.'" But some apprehended that I was after knowledge for a good purpose, and unselfishly set themselves to work to add to the common store of clinical verifications, and in the short time those

disposed had to work, enough has been furnished to prove conclusively that solicitation for verifications, if made at once by the Bureau of Materia Medica under the direction of an abler chairman than I, will give us a real feast when the next bureau report is in order. That it may be so is my hearty wish.

Some suggestive remarks made by those who responded to my inquiry, I beg leave to produce here, because on this matter they show the temper of some of our working and thinking men, of whose work and thought we should avail ourselves in future.

Dr. T. F. Allen writes: "It matters very little whether symptoms are verified or not; *all* the provings, if genuine, are susceptible of verification, and now that the Index places at our ready use the whole mass of our pathogeneses, every day enables us to underline symptom after symptom. This summer, in New York, Vermont and Connecticut, I have met with physicians who are constantly curing old cases by my Index, with drugs whose names they had never heard of before." Then Dr. Allen states further, and in this matter he should receive the encouragement of every progressive physician, "My work is plain before me: *to ascertain what is unreliable in our pathogeneses.* 1st. Unreliable are all of the *empirical* notions of old herbals, old women and enthusiastic fanatics. I hate empiricism; it is *the* bane of our school. 2d. A *very* few provings, as for instance æsculus. 3d. Symptoms cured in the sick by a remedy apparently homœopathic to a part of the case."

While Dr. Allen, and all whom he can induce to aid him, are engaged in their laudable efforts to expunge unreliable "provings," let us, and all whom we can induce to aid us in the future, see how often and under what diseased conditions, *produced* symptoms will be verified, so that, in the near future, we can have in Allen's Encyclopædia a reliable work on *provings*, and in Hering's Guiding Symptoms a reliable work on *clinical verifications.* When these are published, what a happy day it will be for the now hard worked and often perplexed physician! Many a *similimum* will then be found that it is not possible to find now!

Dr. S. A. Jones says: "My will is good enough, but my time will not enable me to wade through Allen's ten volumes. You should give one about a year, and then you could get replies of some value. Your move is a good one, for you are after just the

information that all need." In a later communication, Dr. Jones writes: "Your request misled me. You asked for so much, and I was so short of time, and not well. But I can see my way to help a little, and thus: I am a most unworthy Honorary Member of your State Society, and I have never done anything for the Society specially. Now, get up a Committee on Verifications, and I will send you all I can get together by September 1st, 1882. I shall keep an eye for such things constantly now, and if a good number join in this work we can do some wheat finding. I congratulate your Society on the value of the work on which it is about to enter."

Dr. Edward Rushmore, of Plainfield, N. J., writes: "There are probably a number of previously unverified symptoms among my cases, but at present it seems difficult to hunt them up. If I publish any cases, will endeavor to pay regard to that point in stating them."

Dr. D. Cowley and others intimate that they have made verifications, but want of time prevents them from communicating the information asked for at this time. Shall we not get it in the future?

I will now give in alphabetical order the remedies of which symptoms produced have been verified in practice, and not marked verified in Allen's Encyclopædia, nor published elsewhere so far as I am aware, except in a few cases. The contributors' names are given, and the figures appended to the names of remedies refer to the potency found efficacious in removal of symptom. Such remarks as were made explanatorily are given in the words of the various writers in brackets. Italicized symptoms have been more frequently verified than those in roman type.

Abies nigra[30].

Sensation of an undigested hard-boiled egg in the stomach. H. N. Guernsey.

Acetic acid[30].

Face pale and waxen.

Intense thirst.

Violent pain and sensation of burning in the region of the chest and stomach.

Frequent vomiting.
Abdomen distended.
Chronic derangement of gastro-intestinal canal.
Liquid diarrhœa.
Diarrhœa with swelling of feet and legs.
Lienteria.
Urine increased in quantity and of a lighter color.
Lassitude of the limbs.
Impaired muscular power of the legs.
Swelling of the feet and legs, with diarrhœa.
Œdematous swelling of the feet and legs.
Prostration of strength.
Her body wastes.
Skin pale and waxen.

[Intense thirst and the passing of large quantities of urine are invaluable key-notes in this remedy. I have cured several cases of diabetes, intense thirst leading the way to the remedy.] H. N. Guernsey.

Aconitum.

Cough better when lying on the back. H. C. Allen.

Actæa spicata[500].

Pains in general, *tearing*, drawing.

[With actæa spicata I have cured many cases of rheumatism of small joints; wrists, ankles, fingers and toes when they are red and inflamed, and patients complain of most distressing *tearing* and drawing pains. A key-note is the following: "in all rheumatic affections, if the preponderance of the suffering is located in the small joints."] H. N. Guernsey.

Æthusa.

Very cross and fretful.
Frequent vomiting, with frequent painful diarrhœa.
Restlessness with excessive anguish.

[Cured with [1m] and [10m] potencies. A key-note is: "can't bear milk in any form."] H. N. Guernsey.

Ailanthus.

Stoical indifference to whatever happens.

Restlessness.

Headache with confusion of intellect.

In two hours drowsiness had become insensibility, with constant muttering delirium; did not recognize the members of the family. She was now covered in patches with an eruption of miliary rash, all of a dark, almost of a livid color. The pulse was now small and so rapid as hardly to be counted; the surface had become cold and dry; the livid color of the skin when pressed out returned very slowly; the whole was a most complete picture of torpor.

[Scarlatina cured with ^{30} and ^{45m} potencies. A key-note is the skin as given above.] H. N. Guernsey.

Alumina^{47m}.

Upon seeing knives horrible thoughts throng her mind; she feels, for instance, as if she would commit suicide (and actually makes the attempt by trying to draw the knife across the throat), although she has the greatest aversion to it.

Serious, anxious mood.

[The rectum is inactive, as if it were deficient in peristaltic motion and had not strength enough to press the contents out; the stools are soft, and they can only be pressed out by straining the abdominal muscles.] H. N. Guernsey.

Ammonium mur.

The menses appear two days too soon, with pains in abdomen and small of back. H. C. Allen.

Amyl nitrosum.

A bright florid flush spreads over face.

Face at first intensely red, then very pale.

Face became intensely red and hot, this came up and subsided like a wave; later, face paler than usual.

Tickling in throat.

Peculiar sensation of choking.

Accelerated heart action.

Increased frequency of cardiac pulsation.

[The latter two symptoms have been frequently verified when occurring at or after the climacteric.] H. C. Allen.

Antimonium crudum.

Continual discharge [at intervals, of course,] *of blood and solid portions from the intestines by the rectum.*

[If not blood, fluid matter and solid portions are passed. I have confirmed both frequently, using the 200th potency.] H. N. Guernsey.

Sensitive stinging in the skin of the sole of the right foot, going off by rubbing; in the evening in bed, after a walk. H. C. Allen.

Apis mellifica.

Stupid, sleepy, headache.

Was unconscious of what was passing before him.

Complete loss of consciousness.

[Stinging pains a valuable key-note. 40m.] H. N. Guernsey.

Severe cough after lying and sleeping, awaking from sleep. P. S. Duff.

Sensation of cold without coldness of the skin, with ague. [Many times verified.] H. C. Allen.

Argentum nitricum 45m.

Gastric derangements accompanied by belching.

[Belching affording great relief, when the bowels are not constipated, is a great key-note.] H. N. Guernsey.

Arnica.

Nightly sour sweat.

Several transitory sweats over the whole body, at night, with anguish. H. C. Allen.

Erysipelatous inflammation, dark blue.

[This has a similitude in erythema nodosum, which in disappearing passes through all the changes of color of a bruise, and has many of the same subjective symptoms.] W. J. Guernsey.

Arsenicum.

Skin dry and scaly, cracked all over, and very sore. W. J. Guernsey.

Arum triphyllum.

Obscuration of sight.

Very frequent sneezing, and much watery discharge from the nose.

Nose watery, discharge profuse.

Nose moist but obstructed.

Nose dry.

[These symptoms I have verified for five or six years in hay fever with uniform success.] H. C. Allen.

Atropinum.

A worm in the field of vision.

[Cured in a case of ten years' standing.] Edward A. Wareheim.

Bovista[200].

Burning in the anus, continuing a long time after the watery stool.

[Worded differently in Allen. Noticed particularly in morning diarrhœa.] H. N. Guernsey.

Bryonia[70m].

Burning in the lower lip.

[I have cured many a lower lip in old smokers, when it is swollen, dry, black and cracked, with *burning* and sensitiveness. One dose per week for a long time works a complete cure.] H. N. Guernsey.

Bufo[45m].

Panaritium, attacking even the bones of the fingers.

[In all cases of panaritium, useful when skin looks purplish, and pain streaks up the arm to axilla. Also in ulcerations about fingers with similar condition of arm.] H. N. Guernsey.

Calcarea carbonica.

Skin inflames or suppurates easily from injuries.
Urticaria better in cold air.
Many small warts. W. J. Guernsey.

Cantharis.

Vesicles and pustules burning when touched. W. J. Guernsey.

Chamomilla.

The skin is unhealthy, every injury causes a sore and suppuration.
[Stubborn cases, especially of intertrigo, which have not yielded to other remedies, when mental state corresponds.] W. J. Guernsey.

Conium[70m].

Vertigo so that everything seems to turn in a circle.
Vertigo on going down stairs.
Vertigo worse when lying down, as though the bed and everything in the room were turning in a circle. (Worse on rolling the head to either side.)
[This last symptom is of the utmost value as a key-note.] H. N. Guernsey.

Crocus[200] and [1m].

Repeated shocks in the left side of abdomen at night while fully awake, like the movements of a child at the end of pregnancy, and such as she had felt several months previously (and that daily).
A painless shock in the upper abdomen as from something living which jumped upward.
[These sensations of motion in the abdomen are of the utmost value for this remedy in the treatment of female disorders.] H. N. Guernsey.

Crotalus cascavella[7].

Great sadness; her thoughts dwell on death continuously.
Thoughts of death (and about the dead) haunt her everywhere, especially when alone.

Sleeplessness. Dreams about the dead when she does fall asleep.

[Cured a case of inveterate *insomnia* with above symptoms, the patient being a woman, unmarried, during climacteric. She had no pains nor aches to complain of.] C. Mohr.

Euphrasia.

Pressure in the anus while sitting. E. A. Wareheim.

[See report of case cured with euphrasia, published in Trans. 1877, p. 316.] C. Mohr.

Gelsemium^{30m}.

Severe, sharp, labor-like pains in the uterine region, extending to the back and hips.

[Sometimes the pain also extends backwards and upwards.] H. N. Guernsey.

Graphites.

Sensation in the right ear at every step as if a valve was opening and closing.

[This symptom occurred in a young man, aet. 17 years, of a decidedly scrofulous diathesis, who was prone to catarrhs of various kinds, and papular eruptions, especially on his back. About a year before I saw him, he fell backwards out of a wagon, and struck the back of his head. He was very low-spirited and despondent about his condition. The noise in his ear was a source of great distress to him, as he regarded it as the forerunner of, or an indication of oncoming cerebral disease produced by his fall, and which he felt sure would end in death, or in what he dreaded more than death, insanity. He was relieved of the flapping in the ears in about one week, and of his mental distress and of all other symptoms in about three months. This occurred some six or seven years ago, and he has had good health ever since, and is to-day a healthy, robust man, and very active in business requiring the full activity of both mind and body.] R. J. McClatchey.

Unhealthy skin, every small injury suppurates. W. J. Guernsey.

Kali bichromicum.

Impetigo of the hands. W. J. Guernsey.

Kali bromatum.

Acne simplex and indurata. W. J. Guernsey.

Kreosotum.

Difficulty of hearing during menstruation.

Humming and roaring in head during menses, with pressing out pain that was aggravated on stooping.

[In a young married woman, who was also sterile and had soreness of the pudenda, burning and smarting on vomiting, and a profuse, acrid, yellowish leucorrhœa, which caused an unbearable itching, causing her to rub and scratch until she became sore and had attacks of vulvitis, which a solution of borax in water and other applications simply ameliorated. She was promptly cured of the leucorrhœa and itching and burning, and although she has menstruated many times since, has had no return of the deafness at the month or at other times. A careful inspection of the ears with an aural speculum revealed no causes for the deafness. She still remains sterile.] R. J. McClatchey.

Lachnanthes.

Pain in the nape of the neck, as if from dislocation, when turning the neck or bending the head backward.

Pain and stiffness in the neck, going over the whole head down to the nose, then like pinching the nostrils together.

[I have relieved the above symptoms many times very promptly, with lachnanthes, 6th dilution. In my own person I have often relieved myself of these symptoms with lachnanthes. The "going down the nose and pinching the nostrils together," in my own case I have likened to the sensation which one gets when a glass of soda water, or other carbonized drink, "goes the wrong way" and "goes up the nose." In persons traveling who go to sleep at the open window of the railway car and get a stiff neck, I have found lachnanthes a very useful medicament, giving prompt relief.] R. J. McClatchey.

Lactic acid[1m].

Fullness in the throat which keeps him swallowing frothy mucus; the lump or fullness feels like a small puff-ball; not relieved by swallowing.

Constricted feeling low down in the throat, with slight nausea.

[Sensation as if all the food taken was lodged under the upper end of the sternum, which oppresses and distresses the patient for hours, is a new and valuable observation.] H. N. Guernsey.

Lycopodium.

These verifications are furnished by J. E. Winans, of New Jersey. The lines in brackets are this contributor's additions to the symptoms as found in Allen. Of these symptoms, Dr. Winans writes: "The majority should be starred or italicized in Allen's Mat. Med. I have selected this remedy, not only because it is a grand old polychrest in itself, but also because it has been the remedy *par excellence* for the greater number of the more serious diseases prevailing in our section (Central New Jersey) for the past year, and many of its clinical indications are but imperfectly recognized, to the great loss of homœopathic therapeutics."

Desires to be alone (sometimes).

Extremely sad and ill humored.

Anxious thoughts, as if she were about to die, for which she even prepared by thinking of her farewell messages.

Loss of confidence in his own vigor. [Loss of confidence in physician and remedies.]

He is easily frightened and starts up.

Anthropophobia (in children).

She dreads to be alone.

Extremely sensitive mood, she cries about being thanked.

Ill-humored, fretful.

Peevish and irritable, easily excited to anger. She cannot endure the slightest opposition, and is speedily beside herself from peevishness.

Impatience.

Discontented.

Distrustful, suspicious, morose.

Her temper became very much affected, at one time she was *ex-*

cessively merry and laughed at the simplest things, again she was *melancholy* and *low-spirited.*

Indecision and loss of confidence.

Screwing together headache in the temples, as if the forehead would burst, during menstruation.

Redness of the eyes and pressure in them.

Blue rings around the eyes.

Very much sunken about the eyes.

Dimness of vision even for a short distance; it seems as though he were looking through a fine lattice.

Dimness of vision; he is obliged to hold the print sometimes near, sometimes far off, in order to read. (Cataract; in some respects resembling both bovista and sulphur.)

The letters run together while reading. (Presbyopia).

Itching in the ear (in sleep).

Fluent coryza, with redness of the eyes and lachrymation, frequent flushes of heat in the face, and yawning.

Burning in the face.

Swelling of the gum above the front teeth, with swelling of the upper lip.

Bad taste in the mouth soon after eating.

Disgusting taste in the mouth on waking in the morning; the tongue was thick and burning, as after much smoking.

Thirst at night, she is obliged to drink frequently, though but little at a time.

Much thirst, she constantly desires to drink.

Pain in the left hypochondriac region in the afternoon.

Tension in the lower hepatic region and pressure.

Gurgling in the left side of the upper abdomen, audible and perceptible.

Much flatus toward evening, and colic in consequence, and easy discharge of odorless flatus, with distended abdomen (resembling nat. mur. and rhus tox. in amelioration from lying on something hard).

The swelling of the feet ascends until ascites developes, with swelling of the genitals, oppressed respiration and infrequent micturition with pressure.

Accumulation of the flatus in the evening, only a part of which is passed, with pressure in the region of the umbilicus.

The pain in the abdomen increased immediately after a dose.

Abdomen full, distended, with cold feet.

Griping in the abdomen, with three or four evacuations of a greenish mass, without tenesmus. (Green and *stringy* in young children).

Severe colic in the evening like the incarceration of flatus, followed by rumbling in the abdomen and passage of flatus.

Discharge of blood from the rectum, even with a soft stool.

Irritation to cough, as from sulphur fumes.

Cough at night without expectoration, causing pain in the head and both sides of the abdomen.

Frequent coughing.

Distressing, fatiguing, tickling cough frequently during the day, especially in the evening on going to sleep, and in the morning. (Chronic bronchitis.)

Bloody expectoration.

Hard lump in the left breast and beneath the arm, with burning pain. (Cancer after lachesis.)

Palpitation of the heart nearly every evening in bed.

Anxious palpitation at night on turning over in bed.

Acceleration of the pulse with coldness of the face and feet. (In pernicious intermittents it is a very important symptom, especially the coldness of the face (nose particularly) and feet, and sometimes of the hands. This indication should be incorporated into all the homœopathic literature possible, as its therapeutic value cannot be overestimated. It is in itself a gem, and as indicative of lycop. as the dilatation of the alæ nasi.)

Pain in the small of the back, as if it would break in two, with hard stool and colic, as if the intestines would burst.

Pain in the small of the back and stitches in both hips and in the left chest at night.

Pain as from a sprain in right wrist.

Pain in the right wrist, consisting of transient stitches and tearings in the afternoon.

Pains in the left hip joint on motion.

Swelling of the left foot, with stitches in the toes on stepping.

Her feet felt as if dead or asleep.

All the soft parts of the body are painful to touch and pressure.

Child desires to be carried.

He lies long in the evening unable to fall asleep.

(Sleeps lightly, wakes often and easily.)

Uneasy sleep, frequent waking and quite wide awake at 4 *o'clock.*

Uneasy sleep with anxious dreams, frequent waking and inability to fall asleep again for a long time.

The child sleeps very uneasily, and groans in sleep.

Starting up on falling asleep.

Sleep at night very full of dreams, which are fatiguing, with perspiration on waking. (Sweats, particularly about scalp and temples.)

Nightmare at night.

She starts up full of anxiety from sleep, wishes to cry out but cannot, as in nightmare.

Crying at night during sleep, with unintelligible words.

Moaning during sleep.

Chilliness without subsequent heat.

Chilliness over the whole body at 9 A. M. (Congestive chill.)

Constantly increasing chilliness, without subsequent heat or sweat.

Chilliness in back at 3 P. M., still worse in evening after lying down, lasting a quarter of an hour, with cold feet, without subsequent heat or sweat.

Alternating chill and heat, with great redness and heat of the cheeks.

Cold feet constantly.

Frequent flushes of heat, with redness of face.

Burning heat, drinks very frequently but little, with frequent urging to stool without stool.

Rising of warmth along spine.

Heat in the face, eyes, and palms of hands.

Hands constantly hot, which is very troublesome to her.

Great heat in the face without redness.

Great dryness of the skin of the hands (especially palms).

Manganum[200].

Ankle. Inflammation and swelling of both left malleoli, with stitches in the leg extending up from the external malleolus, always on walking, and at times when not walking.

[Confirmed several times. Tenderness of the bones in general, so as to prevent one leg lying over the other, and swelling of the parotid gland during typhoid, are new observations.] H. N. Guernsey.

Nitric acid.

Many small pimples on the forehead, just below the hair (painful). W. J. Guernsey.

Nux moschata[22m].

The tongue and palate are quite dry at night, no thirst, and the tongue feels to the finger like leather.

Tongue felt stiff; patient could not articulate distinctly.

[As key-notes, these symptoms are invaluable, particularly in typhoid fever.] H. N. Guernsey.

Great irritability about the pelvic viscera, particularly during each menstrual period, when the ovaries and womb are swollen and very sensitive to pressure.

[In a maid with sub-acute peritonitis of tubercular origin, with symptoms of tongue as verified by Dr. Guernsey, nux mosch.[3] acted marvelously.] C. Mohr.

Nux vomica.

Excessive itching all over the body.

Terrible pricking, stinging, and itching of the skin, so much so that she had to take off all her clothes to scratch herself. W. J. Guernsey.

Petroleum.

Skin of the hands cracked and rough. W. J. Guernsey.

Platinum.

Thundering jerks like distant cannonade, in the right ear.

[This occurred some twenty-five years ago, in an old maid school teacher, who described her symptoms in the above words almost exactly. She had also slight deafness, or perhaps more accurately, a want of sharpness of hearing. Although she had had this noise in her ear for a long time, she was cured of it almost at once, and in a short time her hearing became quite acute. This occurred when I lived in Doylestown, Pa. About two years ago, more than twenty years after the first prescription, the same lady, having hunted me up, came and complained of the same trouble. Platinum again cured her quite as promptly as before.] R. J. McClatchey.

Rhus tox.

Face frequently swollen until eyes are closed.

[Verified often in erysipelas.] W. J. Guernsey.

Secale cornutum[42m].

Frequent vomiting of large quantities of dark brown slimy mucus, bile and shreds of membrane, all badly mixed in watery fluid.

[In last stage of typhus a dose of secale cured.] H. N. Guernsey.

Sulphur[30].

Coldness of the external surface of the left upper arm. Z. T. Miller.

Terebinthina[200].

Urine very scanty, dark red, *smelling strongly of violets.*

[In a case of highly albuminous urine. A sweet smell of the urine like violets is a valuable key-note for this remedy.] H. N. Guernsey.

Viola tricolor[200].

Emissions with lascivious dreams.

[Vivid lascivious dreams is a valuable key-note in cases of spermatorrhœa.] H. N. Guernsey.

In conclusion, let me urge a continuance of this kind of work for the Materia Medica Bureau for 1882. The result would be especially useful, if the specialists in our ranks could be persuaded to send in verifications of symptoms of the eye, ear, throat, uterus, etc., along with the *objective* appearances of organs and tissues whilst patients were the subjects of the symptoms complained of.

Dr. Lippe: It is probably not known that lachnanthes was proved by a lady with one dose of the^{76m}, producing wry neck. It has been verified over and over again. I do not know why Allen does not put a star there.

Dr. H. N. Martin: The symptom of cinchona is analogous to china. In china we have the symptom, persons drinking cold water get a chill. So in Dr. Morgan's case, getting warm and then cooling a little, he takes a chill.

Dr. McClatchey: A gentleman who always gets a stiff neck by going to sleep near an open window was formerly relieved by rhus, puls. or cimici. in two or three days. I now give him lachnanthes and by noon his neck is cured, and I give it, not in the 76^{m} but in the sixth, which relieves in several hours. Had I known the remedy was proven in the 76^{m} I doubt whether I should have given it.

Dr. Mohr: May be if a dose of the 76^{m} were given the next time you would never have to give it again.

Dr. McClatchey thought the work of verification should be continued. He said it was better than to be looking after new remedies.

REPORT OF THE BUREAU OF GYNÆCOLOGY.

In the absence of the chairman of the bureau, Dr. B. F. Betts presented the following papers, which were read and referred:

Fibromatous Tumors of the Ovaries, by J. C. Burgher, M.D.

Chronic Ovaritis: Pruritus Vulvæ, by M. J. Chapman, M.D.

Vaginitis, by R. E. Caruthers, M.D.

Amenorrhœa, by H. Pitcairn, M.D.

The Advantages of Vaginal Packing in some forms of Uterine Displacements, by B. F. Betts, M.D.

Acute Metritis with Pelvic Peritonitis and Cellulitis, by B. F. Betts, M.D.

FIBROMATOUS TUMORS OF THE OVARIES.

BY J. C. BURGHER, M.D., PITTSBURGH.

While the comparatively rare occurrence of tumors of the ovaries, fibroid in character, formerly led to some doubts of their existence, later investigations have established their presence in the form of fibroid, fibro-muscular, fibro-serous and malignant fibroma. The ovaries, like all other organs of the body, are obnoxious to various forms of disease, and become the centres of different forms of morbid growth.

It is a well established law in general pathology that when an organ becomes the seat of a morbid growth, the *morbi evolutionis* usually takes on a form of proliferation which results in the formation of a tissue homogeneous to the normal anatomical structure of the organ in which it has its origin. And, since fibrous and non-striated muscular elements are largely represented in the normal constituents of the ovaries, they furnish valid histological arguments, for not only the possible, but the probable development of tumors from the exaggerated extension of these constituent elements. Schroeder says,* "Fibroids are seldom found in the ovary, but they may in exceptional cases attain a very great size."

* Ziemssen's Cyclopædia, vol. x, p. 436.

The late J. Y. Simpson had in his collection a specimen which weighed fifty-six pounds; and Spiegelberg describes a fibroid tumor of the ovary which weighed eighty pounds.* The existence of fibroids in both ovaries at the same time is no longer a matter of dispute. Dr. Ramsbotham refers to a specimen in the London Hospital Museum (No. Ea. 27) as "a large fibro-muscular tumor projecting from the fundus uteri. The ovaries are as large as a hen's egg, nodular surface, and converted into dense fibrous masses."

Cruveilhier calls attention to the fact that fibrous tumors are found implanted upon or in the substance of the ovaries, which by their structure cannot be distinguished from fibroid tumors of the uterus, and says that they are often found in both ovaries at the same time, as in the specimen referred to above.

Specimen No. 2,246, Guy's Museum, consists of uterus and ovaries. "The latter are converted into large tumors, each the size of a cocoanut, by the production of a fibro-plastic material." Scanzoni met with four cases in which the autopsies verified the fibrous nature of the ovarian tumors diagnosed during life. The smallest was the size of a goose egg, spherical in shape, elongated, as hard as cartilage and almost without vessels; the largest exceeded the dimensions of a man's head and weighed about twenty pounds. It was irregular, as if formed of several tumors compressed against each other. All trace of the normal tissue of the ovary was absent. In the other ovary he found several dropsical vesicles, some of which were as large as pigeon's eggs.

There is a specimen in St. George's Museum (No. xiv, 140), which presents unmistakable features of a fibrous tumor of the ovary. It is described in the catalogue as "a fibrous tumor of the ovary of a woman aged 50, who died of disease of the heart." The position of the tumor in this case is in the centre of the ovary and excludes, therefore, the objection sometimes urged against other cases, that their origin may have been uterine. I may remark *en passant* that the coincidence of fibroid tumors in the uterus and ovaries so often met with, points to the fact that the fibro-muscular elements of the uterus, broad ligaments and ovaries, are alike liable to these pathological changes.

* Monatschriften für Geburtshülfe, band 28, p. 415.

The affinity of fibroid tumors of the ovaries with those of the uterus is well illustrated by a specimen exhibited by Dr. Wells (Path. Trans. vol. x), of a fibrous tumor of the ovary revealed by post-mortem investigation. On section of the tumor it was found to be composed of fibrous tissue, the denser parts calcified by deposits of carbonate of lime. Its size was that of a large cocoa-nut.

There is a specimen in St. Thomas' Museum, removed from a woman aged 22 (No. FF, 47), described as "the half of a large fibrous, kidney-shaped tumor of the right ovary, with the uterus attached. The entire tumor weighed five pounds and a half; it is deeply fissured on its external surface, and in parts is covered by a false membrane. . . . When recent, it was highly vascular, and of fleshy consistence; its structure is throughout closely intersected by dense fibrous bands."

A specimen in St. George's Museum (xiv, 139), consisting of the uterus and ovaries, further illustrates the subject. The ovaries are enlarged and converted into dense fibrous tissue; a small mass of calcareous material is also deposited in the left ovary. Calcareous deposit or degeneration is presumptive evidence of the fibro-muscular character of tumors in which they exist.

Tait describes a tumor removed from a woman aged 44 years, as follows:* "The tumor was round, smooth, and of a creamy white color, and it weighed almost nine pounds. When cut into, it had a glistening, white and trabeculated structure, and it was perfectly solid throughout, there being no indication anywhere of cystic formation. A number of very thin sections were made, and these were treated by various processes, the uniform result being to show that the tumor really was the ovary, and that its over-growth was limited to the fibrous stroma."

Dr. Bright† records a case in which both ovaries were found after death pretty equally enlarged, each constituting a firm, fleshy tumor nearly six inches in the longest diameter, kidney-shaped in form. They were removed from a patient who had borne children and who had passed the climacteric period.

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* Diseases of Women, p. 149.

† Clinical Memoirs on Abdominal Tumors. New Syd. Soc.'s ed., p. 146.

A specimen was exhibited at a meeting of the Obstetrical Society in 1873, which was described by Dr. Fox as a "loculated fibroid, having in the more central and transparent loculi a great number of non-striated muscular fibres."

Dr. Wells says he removed "two tumors which were really fibrous tumors of the ovary, the right in both cases. One weighed nine ounces, the other four pounds and a half."

Dr. Wilks exhibited three tumors of the ovaries to the Pathological Society,* and remarks that, "the specimens referred to afford examples of the various grades of disease which the ovaries may undergo. We may see in them the connection between a hard, fibrous tumor and the simple cystic disease. We may have, in the first place, a multilocular cystic disease; then a similar disease with the addition of solid fibro-cellular growths between the sacs; thirdly, a disease made up of the same parts, but where the solid predominates; fourthly, a uniform fibrous tumor; and lastly, a hard, dense fibrous growth, resembling the analogous tumor in the uterus."

Drs. Bristowe and Hutchinson† examined the specimens and confirmed the opinions expressed by Dr. Wilks, and conceded the fact that large fibrous tumors may be developed from the ovary.

Waldeyer‡ reports a case of ovarian fibroid, which had a complete osteoid structure; and Kleinwächter§ performed ovariotomy for the removal of a supposed bony tumor, of which a portion was fibrous.

Rokitansky and Klob describe the development of fibroids from a *corpus luteum.*

Jenks reports a similar case in the *American Journal of Obstetrics,* vol. vi, p. 107.

Virchow states that myo-fibromata occur in the ovary. Tait records two cases, and Peaslee reports seven. Scanzoni's larger specimen referred to in this paper, seems to make it highly probable that fibrous tumors of the ovary differ from simple cystic tumors, principally in the greater development of the fibrous tissue and the lesser proportion of cysts. This is probably owing to the more or less obliterated condition of the cysts by the

* Pathological Transactions, vol. 9.

† *Loc. Cit.*

‡ *Archives fur Gynœkologie,* band 2, p. 440.

§ *L. C.,* p. 171.

hypertrophied state of the intervening tissues. These overgrown partitions are composed of a fibrous vascular structure, not distinguishable from that found in the cyst-walls of the fibro-cystic growths of these organs. Hewitt* says: "*Fibrous tumors* are met with in the ovary, in many respects resembling those found growing so frequently in the walls of the uterus; but a distinct, independent pedunculated fibroid tumor of the ovary is a very rare pathological product, many cases recorded as such having really a true uterine origin. The fibrous growths met with in combination with cystic disease of the ovary belong to a different category, and are not so uncommon. The solid, independent fibroid tumors of the ovary have been found sometimes to undergo osseous transformation, and the same may probably hold good with reference to other fibrous tumors."

These extensive references and quotations have been culled from some of our best authorities on the subject under consideration, with the view of making some practical clinical suggestions; and to show the want of more definite pathological knowledge for a correct diagnosis of what are now classed as solid ovarian tumors. As solid tumors of the ovaries include not only fibromatous and fibro-cystic growths, but also tubercular and malignant transformations, the distinct recognition of the character of solid tumors of the ovary will be appreciated as of great value on clinical grounds alone. Pathological processes do not, as I understand their history, afford any argument for the convertibility of one form of morbid product into another. Hence the occasional apparent transition from the cystic tumor to the colloid cancer affords grounds for the belief that some forms at least, (as for instance, the proliferous,) partake of the cancerous character, *ab initio*. A solid tumor of the ovary is but a local manifestation or expression of a diffusive or constitutional disease, involving other organs. This consideration adds weight to the argument for constitutional treatment, and weakens that for extirpation. What would it profit the patient, for instance, to have a cancerous ovary removed after the disease has invaded other organs? Does it promise the arrest of the disease in its fatal course?

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* Diseases of Women, p. 608.

Fibrous tumors of the ovary do not, as a rule, produce any very decided dynamic symptoms; they are neither painful nor sensitive and may escape the notice of the patient until it has reached a large size. Where only one ovary is involved, which is more commonly the case, the menstrual functions may be regularly performed and pregnancy may even take place. In other patients a fibrous tumor of the ovary, even of moderate size, may cause irritation among the pelvic viscera, and derange in various ways the physiological functions of the generative organs. In one patient we may have very distressing dynamic symptoms with constitutional disturbance calculated to excite alarm; and in another, a disease identical in its nature without causing a dynamic symptom sufficiently pronounced to direct the attention of the patient to it. Uterine fibroids develop from a definite point, while ovarian fibroids resemble more a uniform hypertrophy of the entire organ, preserving in a measure its normal shape and anatomical relation to the broad ligament, while the Fallopian tube which passes through it retains its natural mobility. In ovarian cystic tumors the pedicle is formed from the broad ligament; in solid tumors it is formed from the short and broad mesovarium. Cystic, as well as fibroid tumors may, exceptionally, so grow into the base of the broad ligament that a pedicle is not formed. In external appearance fibroid tumors of the ovary do not differ from those of the uterus. It is not always an easy matter to determine, even in the cadaver, whether a fibroid originated in the ovary or the uterus. How much more difficult in the living subject! For instance, a fibroid of the uterus may be so located as to occupy the place that an ovarian fibroid would, while the ovary may become so atrophied by pressure, or become so closely incorporated with the tumor as to all appearances to form a part of it.

Dr. H. N. Guernsey* says of solid tumors of the ovary: "They are of several varieties, and are either external and attached to the ovary, or imbedded within its substance. They are similar in situation, structure and variety to tumors of the uterus, and often occur in the ovaries at the same time that they do in the womb, but are less intensely painful."

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*Application of the Principles and Practice of Homœopathy to Obstetrics, etc., 2d ed., p. 732.

A fibroid tumor of the ovary, or in fact any other tumor of this gland, can only be diagnosed with absolute certainty when an enlarged ovary can be detected in its normal position, while the surrounding structures and organs maintain their natural relations to it. And yet, fibroids of the uterus connected to it by a pedicle are sometimes freely movable and closely resemble those of the ovary in their contour and location. Fibroids of the ovary and of the uterus are alike of slow growth, and may produce no very marked dynamic symptoms or constitutional disturbance. A tumor of the broad ligament, or of the Fallopian tube, may be mistaken for one of the ovary. Peculiar difficulties are also experienced in cases where ovarian tumors are intimately united by peritoneal adhesions with the uterus, or are firmly bound down in Douglas's *cul de sac.* Simpson says,* "There is probably no other tumor, physiological or pathological, which is more likely to be confounded with fibroid tumors of the uterus of large size, than tumors originating in its nearest organ, the ovary."

About eight years ago I delivered a woman aged about 35, of a well-formed and apparently healthy male child. This woman, prior to her marriage, had been treated by several eminent gynæcologists of this country for fibroid tumor of the uterus without apparent benefit. She took a wedding trip to Europe, where she spent several months. During her travels she consulted a number of the most noted gynæcologists at that time in England, Scotland, France and Germany, each of whom diagnosed a fibroid tumor of the uterus, and told her that she could never become pregnant.

She died on the seventh day after her lying-in, of acute peritonitis; an old school physician, and one of her former medical advisers, having superseded me two days before her death. The day after her death, at the request of her husband, I made a post-mortem examination in the presence of two of her former physicians, one of whom was her last attendant. The uterus was found in a healthy condition, while the left ovary had developed into a dermoid tumor weighing several pounds, containing an atheromatous substance, hair, and several bony concretions resembling teeth. The tumor was probably ruptured during the throes of labor, and accounts for the peritonitis, as a considerable quantity of its more fluid contents had escaped into the abdomen.

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* Diseases of Women, p. 685.

The prognosis of fibroids is more favorable than in other varieties of ovarian growths; they usually develop slowly and, as a rule, are painless unless they attain a large size, when their encroachment on the neighboring viscera or adjacent organs may occasion much distress.

The medical treatment of fibroids of the ovary must necessarily vary more or less in each individual case. In the treatment of these tumors our object is four-fold. First. To endeavor to prevent its further growth. Second. To procure its absorption. Third. To mitigate the symptoms caused by it; and Fourth. To improve the general health of the patient. It is scarcely necessary to say the remedy employed should be selected with great care. Dr. H. N. Guernsey, in his admirable work before referred to, gives indications for the employment of the following named remedies in the treatment of ovarian tumors. As every progressive physician is presumed to possess the work, I need not here reproduce the indications for their selection, but will simply recapitulate the remedies, viz.: apis mel., arnica m., arsenicum alb., belladonna, china, conium, graphites, iodium, lachesis, lycopodium, zinc, and also recommend the study of apocynum cann., eupatorium purp., hydrastis, sepia, and the remedies he mentions under the treatment of cancer of the ovary.

I will merely add, in conclusion, that in several cases of at least supposed fibroid tumor of the ovary, I have witnessed very marked improvement from the following, according to symptomatic and constitutional indications: calcarea carb., calcarea iod., and secale cor. I may mention, also, papaya vulgaris as a remedy worthy of trial in fibroids of both the uterus and ovaries.

CHRONIC OVARITIS. PRURITUS VULVÆ.

BY MILLIE J. CHAPMAN, M.D., PITTSBURGH.

Case I.—Miss A. L., aet. 28, American, with fair complexion, but with dark hair and eyes; a well developed and apparently healthy woman, but has had dyspepsia and dysmenorrhœa for several years. She complains of severe pain in the abdomen and

back, accompanied by constant burning, stinging pain in the right ovary during the menstrual flow. She is very despondent, is sure she will die, is exceedingly nervous and at times hysterical. She has a sensation as if the least effort to bear down would break some internal structure. She was compelled to keep the right limb flexed when lying down.

On examination, I found congestion of the cervix uteri, and the right ovary enlarged to fully the size of a hen's egg.

During the eight months following the time the above was recorded, this patient received three remedies, given as the indications varied. These were apis, belladonna and lycopodium. The ovarian enlargement disappeared with all the other symptoms. Since that time her menstruation has been regular, normal and painless.

Case II.—Mrs. R., aet. 32, blonde, usually in good health, except that she suffered from dysmenorrhœa and her menses were occasionally followed by an acrid leucorrhœa. She was suddenly afflicted in November, 1878, with pruritus vulvæ, with intense itching and burning, causing most terrible suffering.

Graph., sulph., rhus tox., sepia, caladium seg., petrol., kreos. and platina were used, with no relief.

By this time the parts were dry and chapped and the patient nearly frantic. The pain came in paroxysms. The vaginal douche of hot water, medicated with borax, was then used daily, followed by the insertion of a cotton tampon, saturated with glycerine, which prevented the leucorrhœa from exuding and drying. Arsen. alb. was given internally. Improvement was soon noticed, and after a short time, recovery.

These cases are often found among those subject to eczema, and are always worse in cold, frosty weather. I had a large number of cases that year, and found the borax and hot water better than other applications to palliate the suffering until the indicated remedy could act.

VAGINITIS.

BY R. E. CARUTHERS, M.D., ALLEGHENY CITY.

Among the afflictions of the female genital organs that are frequently met with in general practice, there is none that gives more trouble, especially when the question of differential diagnosis arises, than inflammation of the vagina, or kolpitis. The difficulty of distinguishing between the simple vaginitis and that produced by the specific action of gonorrhœal poison is great, and further than that, a grave responsibility devolves upon the physician when such questions are submitted to him, for on his decision depends the happiness and peace of an entire family.

Three varieties of vaginitis are recognized, viz.: simple, specific and granular.

Simple vaginitis may be either acute or chronic. The chronic form may be the sequel of an acute attack, or the acute form may supervene after the existence, for a longer or shorter time, of a low grade of inflammation. We here recognize the fact that a disease may be chronic from its inception. This affection is also divided into primary and secondary forms, the former designating that form in which the inflammation originates in the vagina itself, and the latter, that in which it is the result of irritating discharges from the uterus.

As causes, we may mention, discharges from the uterus; exposure to cold and moisture; injury from pessaries or coition; disordered blood states, as those of phthisis and the exanthemata; retained and putrefying secretions; chemical agents; parturition.

In the acute form, the labia also are generally affected, becoming tense and swollen, causing great pain when walking, on account of the chafing of the inflamed labia; the mucous membrane of the vagina is red and hot and covered with pus. The surface is very sensitive to the touch, and on examination by the speculum, if this can be borne, which is rarely the case in the first days of an attack, is found to be congested and abraded, and sometimes small spots of ulceration will be observed. The inflammation may extend to the urethra, and as a result of the extension of

the disease by continuity of tissue, we frequently find inflammation of the cervix uteri, and it may even extend to the lining membrane of the womb, and result in endometritis, inflammation of Fallopian tubes or pelvic peritonitis.

Acute attacks are often accompanied by constitutional symptoms, such as chilliness over the whole body; pain in limbs, back, etc.; increased temperature and a rapid, wiry pulse; tongue coated with a white coating; anorexia, with sometimes nausea and vomiting.

In the chronic form the symptoms are less severe, may consist only in a slight itching or burning, and may exist for years, producing leucorrhœa, and sometimes painful vaginismus, which makes the act of copulation painful, if not entirely impossible.

The symptoms of simple vaginitis, as given by Thomas,* are: a sense of heat and burning in the vagina; aching and weight at the perinæum; frequent desire for micturition; profuse, purulent discharge of offensive character; violent pelvic pain and throbbings; excoriation of the parts around the vulva.

The duration of acute attacks of the disease is usually about two weeks. The chronic form lasts indefinitely, and may only exhibit itself as a vaginal leucorrhœa.

Specific vaginitis differs from the simple variety in its cause. It is always produced by the direct contact of the gonorrhœal virus.

The symptoms are identical with those given for the simple variety, with the addition of scalding in the passage of urine. The vulva, vagina and urethra will be swollen, red and hot, bathed in a profuse secretion of thick, creamy pus, which may sometimes be blood-streaked.

The duration of this variety is indefinite. It may last for months. As a result of this affection we may have cystitis from an extension of the inflammation into the bladder by continuity, or it may extend to the uterus and cause endometritis. Other affections which may appear as sequelæ, in addition to those given under the simple variety, are: buboes, abscesses of the urethra and inflammation of the vulvo-vaginal glands.

The third variety, granular vaginitis, is characterized by the

* Diseases of Women, 5th ed., 1880, p. 214.

presence, in addition to the appearances described under the simple form, of small granulations about the size of a millet seed, scattered over the mucous membrane of the vagina and cervix uteri. It consists in a hypertrophy of the muciparous follicles lying imbedded between the rugæ of the vagina. It is frequently accompanied with pruritus vulvæ, or a lichenous eruption may appear on the pubes. This variety may be the result of either of the other forms of the disease, but is usually a result of pregnancy, and may disappear without treatment, on the occurrence of parturition.

Vaginitis can be differentiated from endometritis, pelvic abscess, granular degeneration of cervix, etc., by the use of the speculum, and in all cases this means should be employed if at all practicable. This is the more important from the fact that, especially in the gonorrhœal variety, the disease may be limited to the upper part of the canal, giving no occult sign of its existence, which can only be discovered by a thorough examination.

The greatest difficulty lies in distinguishing between the simple and specific forms. There has been considerable difference of opinion in regard to this subject, some authors claiming that there is no difference whatever in the two diseases, that the discharge from the simple form is as likely to produce gonorrhœa as that of the specific.

There is no real, positive, distinguishing sign between the two affections, and, as Mundé* says, a diagnosis of specific vaginitis must usually be made more on the strength of the antecedents and character of the patient, and on the admitted or suspected possibility of such an occurrence, than on the physical appearances.

The following symptoms, as given by Thomas,† will cause us to suspect the presence of the specific variety: great violence and acuity in development; development in a woman previously free from gonorrhœal discharges; marked urethral complications; copious purulent discharge; transmission to the male from coition.

Beside this, it is stated by J. Matthews Duncan‡ that a vaginitis is probably of a specific character if it begins within two or three days of the infection; if it is very severe and runs an acute course; if the secretion of pus is copious, beginning about the third day of

* Minor Surgical Gynæcology, Wood's Library, 1880, p. 158.

† *Op. cit.* ‡ *Medical News and Abstract*, vol. 38, p. 461.

the inflammation and remaining copious for about a week or nine days, the vulva is affected and the inguinal glands are involved, causing bubo; the inflammation extends to the urethra and bladder; there is liability to ovaritis, and there is certainty of infection if the matter touches any mucous surface, such as that of the eye.

To sum up the distinguishing symptoms of the two affections, we cannot do better than to quote the comparison of Dr. Gilchrist,* differing with him, however, in that we think that recent research has shown that there is no peculiarity in the pus from gonorrhœal vaginitis, examined microscopically, that will allow us to positively determine that a given case is of specific origin.

Acute Inflammation.	Specific Inflammation.
Gradual establishment.	Speedy establishment.
Previous leucorrhœa, usually.	No previous vaginitis or endo-cervicitis necessary.
Manifest cause for change in secretion.	No natural cause for change in secretion.
Evident injury or some adequate excitant.	No history of injury, or exposure to adequate non-specific morbific agency.
Not general; more a local and circumscribed inflammation.	General spreading inflammation.
Confined to mucous surfaces.	Extends deeply to all the tissues of the part.
Discharge of ordinary mucous character; if pus, not peculiar; debris not very abundant.	Predominantly purulent; crypta gonorrhœa readily made out.
No glandular enlargement; if so, rarely suppurates.	Bubo frequent; often suppurates.
Rapidly subsides in otherwise healthy subjects.	Goes through three stages; resolution imperfect.
Application for treatment made late and to family physician.	Early application with trepidation, and to other than family physician.
Reputation for chastity unquestioned; domestic relations harmonious.	Chastity questionable; domestic relations inharmonious.
In charge of rape; no gonorrhœa in alleged assailant.	In charge of rape; the assailant must show evidences of contagion.

One of the prominent factors in the treatment of vaginitis, is rest. The patient should be kept quiet in bed and all exercise and sexual intercourse should be prohibited. The vagina should be thoroughly syringed, four or five times a day, with water at a blood heat. This measure will cause a diminution of the heat,

* *Homœopathic Times*, vol. 8, p. 79.

swelling and redness, and reduce the amount of secretion. It is recommended to use a wash of one to ten grains of nitrate of silver to an ounce of water, and, after using this, to apply a tampon of carbolized cotton soaked in glycerine, to be renewed every twenty-four hours.

Of the remedies for internal use the first to be thought of is aconite. This would be more especially indicated if the case is seen in the first stage, when the mucous membrane is dry and hot and before the flow of mucus has become excessive, although the latter condition does not contra-indicate it.

Arsenicum may be used if there is great depression of strength; hot flashes with chilliness.

For urethral complications we will have to rely on cantharis, cannabis sat. and belladonna, the usual indications leading to the selection of the particular remedy for the case.

For the chronic variety we will need to use calcarea carb., sepia, mercurius, nux or pulsatilla, according to the character of the discharge and the accompanying symptoms.

AMENORRHŒA.

Suppressio Mensium, with Vicarious Menstruation and Renal Complications.

BY HUGH PITCAIRN, M.D., HARRISBURG.

Aug. 26, 1880. Mrs. Anna E. J., widow, æt. 56 years; never pregnant; came to my office and complained of dizziness, intense throbbing, congestive headache, chills in back and slight fever, following hæmorrhage from the nose. Anæmic, extremities cold and œdematous; sensitiveness of abdomen, worse from pressure; oppressive pain in region of kidneys; aggravation every other day and after dinner; pulse slow and weak; appetite poor; sleep disturbed, at times cannot go to sleep; thinks she has malaria; every little exertion makes her nose bleed; constant weight and heat on vertex. Her menses ceased twenty years ago, when thirty-six years of age. She then became very bloated, her abdomen enlarged, and she was pronounced by her physician, who made an examination, enciente. However, in a few months the bloating

disappeared and she was perfectly well, her courses not returning. Ten years later, after a very severe congestive headache, while lifting a heavy article her nose bled profusely, and since that she has had frequent epistaxis which grew very much worse, so that she had hæmorrhage every week or ten days. She has had seven different physicians, all of whom told her she had ruptured blood vessels of nose, and the small capillaries discharged from slightest exciting cause. ℞ china[30].

Aug. 29th. Very much improved; felt better than for some time but desired something that would, if possible, prevent the return of the epistaxis. The hæmorrhage was usually bright red; tongue white; chilliness and weakness previous to attack. She was sure she must have one soon. Bry.[30] and bell.[30] in alternation gave partial relief for a short time. From this date I was called every couple of weeks to her bedside to allay hæmorrhage of the most violent and alarming character, using ipecac, carbo. v., calc. os., ham., merc., rhus and other remedies, but I was generally compelled to plug the posterior nares, using astringents.

Late in September I informed the lady that her hæmorrhage was vicarious, but had in my opinion become dangerous to life; that there was probably a misplacement of the uterus, causing suppression of the menses; that an examination would, therefore, be necessary to enable me to proceed intelligently. To this she demurred, and thought the seven professional gentlemen preceding me would doubtless have mentioned this as the cause, if probable. They having not done so, and she not having seen her menses for twenty years, now far past the change of life, she thought my diagnosis was probably not correct. Upon leaving I informed her that if called again I would proceed on this hypothesis and endeavor to re-establish the flow properly. On the occurrence of the next attack she did not send for me, but another alarming hæmorrhage coming October 6th, I was called and found her in what they denominated a congestive chill, with pain in the head as though it would burst asunder; extremities and surface of body cold; violent cramps in all the muscles, and delirium. Heat, friction and restoratives were used. ℞ acon., puls., colocynth. Her nose, which had not yet bled, soon commenced, ending in hæmorrhage, necessitating the plugging of the posterior nares.

Upon examination per vaginam, with the speculum, I found the os uteri occluded by a tough membrane, which I punctured with a probe, and inserting a uterine sound I found the uterus normal in size and position, but without the slightest congestion. I then concluded to make use of the battery, and passed an insulated electrode to the fundus uteri with the negative pole over the spine, using a moderately strong, continuous current for five minutes, at the same time giving puls.[3] and ars.[3] in alternation, conjoined with hot water applications to the hips and feet, without any show of menstrual flux. She gradually, however, convalesced, and I left her on these remedies, with instructions to send for me on the first symptom of congestive headache, using hot hip and foot baths till I arrived.

Oct. 14th. Seven days later I was again called and found the os uteri as before, but opening more readily on pressure of the sound. I applied the electric current, and though she suffered very violent dysmenorrhœa, the first in her experience, we were rewarded by complete re-establishment of the menses, lasting several days, twenty years having intervened since her last.

I was now informed she had not passed urine for several days, was greatly bloated, her lower extremities œdematous, with throbbing pain in region of kidneys. She had been treated sixteen years previously for nephritis and retention of urine, when a catheter was used by her physician twice daily for six weeks, and she feared telling me lest I would propose the catheter. She had partial suppression for several days at a time immediately after each attack of epistaxis, but it always came all right and she supposed it would again. She had not passed any urine since two days (October 13th). ℞ acon., apis, bell., buchu, canth., cann., merc., opium, zinc m., berb., erigeron, with hot fomentations.

Oct. 16th. I drew with catheter fifteen ounces of urine, heavily loaded with earthy phosphates. She was obstinately constipated.

Oct. 17th. Temp. 98, pulse 80; five ounces urine. Uræmic symptoms becoming very decided, amounting almost to convulsions, with great soreness and stitches in the region of the kidneys; eyes exquisitely sensitive to the least particle of light. I gave the lady a purgative dose of colocynth. A very copious watery stool followed, relieving most of her worst symptoms.

Oct. 18th. Pulse and temperature normal. No urine.

Oct. 19th. Temp. 100, pulse 90. No urine. Again very decided uræmic symptoms with slight tonic spasms and vomiting of mucous substances. Had a bath prepared 100°, wrapped the patient in a blanket and while she was in the bath I raised its temperature to 110°. The water became quite dark yellow. I then had her wrapped in dry blankets and placed warmly in bed, where she sweat freely for an hour, all the uræmic symptoms disappearing, the pulse and temperature becoming normal, but the urine still suppressed. Hot fomentations were kept over the kidneys.

Oct. 20th. Bath repeated. ℞ apoc. can.

Oct. 21st. Bath repeated. She had a heavy watery stool of a very offensive, urinous odor, and I drew off nineteen ounces of urine of a specific gravity of 1025, containing pus, renal epithelium, blood and cylinder casts.

Oct. 22d. Bath and remedy continued. Nine ounces urine specific gravity 1025; slight diarrhœa; nourished well; pulse and temperature normal.

Oct. 23d. Seven ounces urine, specific gravity 1025 to 1035. During the bath she thinks she took cold and it was discontinued.

Oct. 24th. Seven ounces urine, specific gravity 1025 to 1035, temperature and pulse normal.

Oct. 25th.	7½	oz. urine,	sp. g.	1030,	temp. and	pulse	normal.
Oct. 26th.	5½	"	"	"	"	"	"
Oct. 27th.	5	"	"	"	"	"	"
Oct. 28th.	7	"	"	"	"	"	"
Oct. 29th.	8½	"	"	"	"	"	"
Oct. 30th.	9	"	"	1025	"	"	"
Oct. 31st.	4	"	"	"	"	"	"

Nov. 1st to 4th. I was absent from home, when they were unable to use the catheter. On my return I found no urine had been voided or drawn; marked uræmic symptoms; eyes extremely sensitive to light; headache; pain and pricking sensation all through the body; mouth exceedingly sore and raw. ℞ apoc. and arum trip., and returned to bath, after which I drew off five and a half ounces of urine.

Nov. 5th. $4\frac{1}{2}$ oz. urine.

Nov. 6th. $3\frac{1}{2}$ " ℞ eupa. perf.

Nov. 7th. $2\frac{1}{2}$ " ℞ nux[30].

Nov. 8th. 20 " specific gravity 1008 to 1027. ℞ nux; bath discontinued; greatly improved every way; appetite good.

Nov. 9th. Thirty-four ounces urine, specific gravity 1008; dysmenorrhœa marked; slight epistaxis. The uterine sound was introduced, with the application of the battery as before. Menses freely established.

Nov. 10th and 11th. Twelve ounces urine, specific gravity 1029.

Nov. 12th. Being absent from town I introduced a retaining catheter, but she was unable to bear it, and on my return I found she had had chills in her back, and the menses stopped. ℞ lycop. and puls. Six ounces urine, specific gravity 1030.

Nov. 13th. Menses still suppressed and bowels constipated. ℞ kali b. and puls. Bowels moved. Menses return. Urine, sixteen and a half ounces, specific gravity 1025.

Nov. 14th. Menses cease. Urine, twenty-one ounces, specific gravity 1005 to 1030.

Nov. 15th. Nine ounces urine.

Nov. 16th. Nine ounces urine.

Nov. 17th. Twenty ounces urine.

Nov. 18th. Finding suppression of urine and inflammation of kidneys had passed away while urine was still retained in the bladder, I gave nux and ars., but was compelled to use the catheter.

Nov. 19th. The sphincter being exceedingly small and a stricture being present, I dilated it, when she was able to micturate, and until the 27th of November she averaged twenty ounces of urine daily. From this time until the first of January her progress was steady, and while she has since had slight suppression of urine at time of her menses, yet her menses have continued full and at regular intervals without epistaxis, assisted by an occasional dose of medicine as appeared indicated.

The instructive part of this case to me was the continued suppression of menses for twenty years, and the re-establishment of the same at the advanced age of fifty-six years. The complete

suppression of urine for seven days, and the average of a little less than four and a half ounces for twenty-six days, and yet the patient regained comparative health. Apoc. can. and nux vom., were the most efficient remedies.

Our materia medica is lame in distinguishing between suppression and retention of urine in the provings of drugs.

THE ADVANTAGES OF VAGINAL PACKING IN SOME FORMS OF UTERINE DISPLACEMENT.

BY B. F. BETTS, M.D., PHILADELPHIA.

The mechanical treatment of uterine displacements by means of pessaries, has still its opponents and its advocates. The opponents of mechanical treatment, belonging to our school, rely upon the remedy to effect the cure of the patient, with a restoration of the organ to its normal position, or despite such restoration, the organ remaining displaced. On the other hand, the advocates of the pessary look upon it as a mechanical appliance necessary, in a majority of cases, to support the uterus in its normal position whilst the remedy is acting to cure the diseased condition, which may be either the cause or the effect of the displacement.

Both of these views have been adhered to, where it would have been better for patients had their physicians been more liberal minded and studied methods of treatment more closely. An extensive experience has convinced me that the homœopathic remedy can effect a cure of some cases of displacement and restore the uterus to its normal position, but such cases have been of recent origin, and uncomplicated by structural changes in the pelvic viscera. On the other hand, I am of the opinion that mechanical appliances are necessary in many cases of uterine displacement of long standing to effect a cure in the most speedy, comfortable and permanent manner. The choice of the special kind of mechanical appliance is, however, of more importance than is generally supposed.

The same discernment and thorough scrutiny of the case that is required in the selection of the remedy, is necessary in the selection of the kind of mechanical treatment to be employed.

An improperly applied Hodge pessary may convert a simple

retroversion into a far more serious retroflexion by impinging upon the lower third of the posterior wall of the uterus. When the fundus is heavy and the tissues softened so that the upper part of the organ falls over the posterior bar of the pessary until it assumes somewhat the shape of a glass retort, or whenever the pelvic tissues are sensitive and inflamed, the uterus enlarged and congested, the application of a hard rubber pessary will do harm. Valuable as the Hodge pessary is for uncomplicated cases of retroversion or prolapsus, it is contra-indicated where there is much pelvic tenderness and inflammation. But in some cases of uterine displacement of long standing with these complications, but little progress is made in treatment whilst the organ is pressing down on the floor of the pelvis, compressing the veins whose walls are less firm and unyielding than those of the uterus, until they may be said to be almost ligated, leading to pelvic stasis, partial stagnation with constipation from pressure upon the rectal wall, and impaired digestion. Spanæmia, debility, nervous prostration and general ill health follow in the train of evils.

Such cases will require a careful selection of the appropriate remedy. The patient must also be required to assume the recumbent posture most of the time, and may even call for a total suspension of voluntary motion, relying exclusively upon massage as an exercise for the muscles. At the same time an application may be made to the uterus to keep it in place and promote a free circulation of blood through the pelvis. Such an application consists in the employment of wads of cotton wool saturated with glycerine introduced into the vagina and packed about the cervix. Before the application is made the vagina should be syringed with hot water to cleanse it of all secretions. The uterus should be replaced in the gentlest manner possible. If it is a posterior displacement and pain or difficulty is experienced in restoring it to its normal position, the patient should get upon a hard mattress in the knee-chest position with the nates elevated as much as possible whilst the operator retracts the perinæum by the introduction of one or more fingers into the vagina so that air may distend the vaginal passage when the uterus will recede from its low position in the pelvis towards the abdominal cavity. This will not restore it to its normal position, however, unless the

fundus is pressed towards the anterior abdominal wall. This may be done by means of Guernsey's repositor in some cases, and in others by means of the sound, Sims' or Emmet's repositor carefully passed into the uterine cavity; or still better by hooking a tenaculum into the anterior lip of the cervix to pull the uterus down towards the vulvar outlet whilst the finger presses upon the posterior part of the fundus per vaginam.

When the replacement has been effected, it will then be convenient for the patient to assume the recumbent posture with the left arm back of her in the position of Sims, which facilitates the introduction of the cotton wads and prevents the fundus from falling back towards the sacrum. With the patient in this position the perinæum is retracted by means of Sims' speculum or two fingers hooked into it; the cotton wads, to each of which a string is attached, may be applied to the vault of the vagina and packed about the cervix. If the packing is commenced at the posterior part, or fornix, and continued forwards and downwards until the vagina is almost filled, the cervix will be held in position by the soft cotton wads and the fundus prevented from descending into its abnormal position.

In from six to eight hours there will be a profuse watery discharge from the vagina due to the abstraction of water from the tissues by the glycerine. This will cleanse the vagina and relieve engorgement. If there has not been much discharge from the uterus the packing may be allowed to remain for three days; but should there be considerable uterine leucorrhœa the wads should be removed in thirty-six or forty-eight hours by traction upon the strings.

The packing for anteflexion is applied so as to straighten the canal of the uterus. Ignoring the position of the fundus, the cervix is pushed back by the cotton wads until it follows a straight line passing through the cavity of the fundus. We thus convert an anteflexion into an anteversion; in time this anteversion becomes permanent, and can be treated by placing a large wad of cotton in front of the cervix just within the vulva to elevate the anterior vaginal wall and throw the fundus upward, or by means of an anteversion pessary.

The packing for displacement may be introduced once or twice a week during the intermenstrual period, and as a substitute for all forms of hard rubber pessaries in displacements complicated with pelvic tenderness and inflammation, or when small tumors exist upon the posterior wall of the uterus, it has been found very efficient.

Dr. Morgan: I am interested in cotton supports. I make use of the cotton more than any other material, and I urge upon the profession the importance of glycerine wads, in cases of pruritus. It is more efficient and does not interfere with the remedy. I am pleased that Dr. Betts has recognized the value of cotton packing. I find it useful every day. I make use of a peculiar form, viz.; the cotton dumb-bell pessary, single or crucial, as an internal support in many cases, employing the very finest and whitest only, that known as "jewelers' cotton." It holds the uterus up and acts like a spring.

In anteversion, I double it up, introduce it through the speculum in the knee-elbow position, and after it is placed, allow the patient to take the recumbent position. I have a string attached to the inner end. This makes an elastic support. I have improved upon this somewhat by taking two of the cotton pessaries and tying them together; the single one gets crosswise in the vagina. The two together form a kind of a straddle which supports the uterus and can be allowed to remain for forty-eight hours.

ACUTE METRITIS WITH PELVIC PERITONITIS AND CELLULITIS. CLINICAL CASES.

BY B. F. BETTS, M.D., PHILADELPHIA.

These cases will illustrate the effect of the homœopathic remedy upon pathological conditions clearly defined by an accurate examination, although the pathological conditions were not guides which led to the selection of the remedy.

Case I. Mrs. F. was an invalid, under allopathic treatment for six years. She had been confined to her bed nearly five weeks

when she came under homœopathic treatment, in June, 1880. The history of the case showed she had suffered frequently from pelvic inflammation and cystitis. She had passed blood with the urine and always had pain when voiding it. She also had repeated attacks of uterine hæmorrhage, which produced great prostration. She was a large, well-formed female, married at sixteen and had one child. She had taken quinine and iron, but with no effect. She could scarcely move without fainting, required to be constantly fanned, and her skin was covered with a cold perspiration. She complained of nausea constantly, vomited occasionally a greenish, watery fluid. She could eat nothing, as the smell or taste of food nauseated her. There was a constant burning pain in the stomach and a trembling sensation felt through the whole body. Although she had a desire for large quantities of water, she could only take a sip at a time, on account of the nausea. She complained of pain in the back which produced great restlessness. Tongue dry and brown. On examination, the pelvic tissues were infiltrated by inflammatory products, so that the uterus was immovable and very much increased in volume. Pelvic peritonitis had extended to the abdominal peritoneum. The temperature was 100° and the pulse 110, weak and fluctuating. Ars.[30] was prescribed, in water, every hour.

In two days all the symptoms were much better. The patient began to take some nourishment, could sleep, and the temperature and pulse were normal.

In a week from the time the first prescription was made, the inflammatory infiltration had disappeared so that the uterus was quite mobile, but still enlarged.

In a month the patient was out, and felt perfectly well, except from some pelvic bearing down pain, due to the chronic enlargement of the uterus. The inflammatory infiltration was all absorbed, and the patient has remained well since.

Case II. Mrs. E. C., married, menstruated regularly until June 30, 1880, when the flow came on with a great deal of pain, which was unusual. The pain extended from the hypogastric region into the limbs. The flow did not continue regularly, but would stop and start again. After the flow ceased she was treated for pelvic inflammation by purgatives and hot water vaginal injec-

tions. The next monthly period came on prematurely and was very profuse and painful. There was frequent urging to stool with discharge from the rectum of mucus mixed with blood. An examination revealed an extensive infiltration around the uterus, which fixed this organ firmly in a retroverted position. The organ was very sensitive and could not be replaced. Nux vom.[30] was given every two hours.

In two days there was no improvement. Dysenteric stools remained the same. The pelvic pains were relieved only after stool. The symptoms were all worse at night. Merc. viv.[30] was prescribed every two hours, and improvement set in speedily.

In two weeks all trace of the inflammatory infiltration had disappeared, the uterus could be replaced and the patient was soon in perfect health.

REPORT OF THE BUREAU OF OBSTETRICS.

In the absence of the chairman of this bureau the report was made by Dr. McClatchey, who presented the following papers, which were read and referred:

My Fatal Cases in Midwifery, by T. Nichol, M.D.

Three Hundred Consecutive Cases of Obstetrics occurring in Private Practice, by M. M. Walker, M.D.

Some of the Puerperal Diseases, by J. H. Marsden, M.D.

* Puerperal Eclampsia, by R. J. McClatchey, M.D.

MY FATAL CASES IN MIDWIFERY.

BY THOMAS NICHOL, M.D., LL.D., B.C.L., MONTREAL, CANADA.

I shall not soon forget my first case in midwifery! I had just returned from Philadelphia with my diploma—the ink of the signatures hardly dry—and had located myself in a little Canadian town on the shore of Lake Erie, in a populous county, in which

*This paper being incomplete was, by vote of the Society, at the author's request returned to him, but he has been unable to complete it.—Pub. Com.

homœopathy was so totally unknown that no one could even define it. One hot morning in July, I sat in my office apparently reading that refreshing work, Hull's Jahr, but really meditating on Hindman, and Angell, and McClatchey, and James, and, in fact, mentally calling the roll of my old comrades, when a tall young man entered the room. Soon he told his errand. Mrs. A., on the fourteenth Concession of Walsingham, was in labor, and desired to secure my distinguished services. I, nothing loath, assented. I was soon seated in my buggy, riding among the fragrant pines, and after a drive of sixteen miles reached the patient's house. I was met at the gate by a woman who adjured me, in the name of God, to hasten, as the patient was very bad indeed. I hastened in and was hurriedly introduced to a tall, stout woman, suffering great agony. I promptly examined, and found the child's arm quite cold and pulseless, presenting; fortunately the pelvis was quite roomy. What was I to do? I was sixteen miles away from home, I had neither chloroform nor opium with me, and the emergency was pressing. Looking up to the rafters, I spied a huge bundle of poppy heads, so I had them down and prepared a huge bowl of poppy seed tea, giving a go of whiskey—"cold without," as they say in England—till it was ready. Then I gave her large doses of the poppy seed tea till, between it and the whiskey, I had her quite unconscious. Then, recalling the cheering words of the beloved Isaac Monroe Ward that "when called to a difficult case the novice often acquits himself as well as the veteran," I proceeded to turn, brought down the feet, depressed the chin, extricated the head and finished the labor.

The patient had been in labor for forty-six hours when I saw her, and the arm had been hanging out for twenty-four hours. As might be expected, metritis followed such a severe and long-protracted labor, but it promptly gave way to nux vomica, given on Hartmann's* indications.

A few days afterwards I ascertained that the messenger had gone in the first place to an old and experienced practitioner in the same town, who inquired as to the precise state of the patient. On being told that the arm had been out for nearly twenty hours, he advised the messenger to go for Dr. Nichol, "who has just

*Acute Diseases, vol. ii, p. 149.

come to town and who will be delighted to attend." He thought, I suppose, that being a homœopath I was necessarily ignorant, but the pupils of "glorious old Ward" are equal to the pupils of any accoucheur on the face of the earth. The fortunate issue of the case gave me confidence in myself and prestige with the public. Midwifery cases came in on me in such numbers that I attended over a hundred the first year I was in practice.

Ever since I have been very busy in midwifery, and for eighteen years I never lost a patient till on January 17th, 1875, I met my first fatal case. Mrs. V., a stout and healthy woman, the mother of a number of children, had a most excellent labor from which she made a good recovery. I dismissed her on the ninth day. On the sixteenth day after the confinement, I was sent for to see one of the children ill of some gastric derangement, when I found Mrs. V. sitting in her room overhauling the children's stockings. On the twentieth day, at noon, she dined off roast pork—a plentiful dinner, I fear—washed down with copious draughts of porter, and all the afternoon she suffered from intense pain in the abdomen, which swelled rapidly. Getting a little easier towards bed time she ate some cold roast pork, and the pains returned with redoubled violence. All night she suffered the tortures of the lost, and at 6 A. M. of the following day I was called to see her for the first time. Both bowels and womb were inflamed and the patient was moribund. She died at 4 P. M.

Shakespeare says: "When sorrows come, they come, not single spies, but in battalions," and my first fatal case was promptly followed by my second. On July 23d, 1875, I attended Mrs. L., a delicate but healthy woman, in her second labor. It was quite easy, but it was hardly over when she was attacked with a foudroyante form of scarlatina maligna, and died in forty-eight hours. It was malignant to the last degree, and no remedies had any effect. You can't cure death.

Nearly five years elapsed, when, towards the close of September, 1880, I was called to examine Mrs. B., a delicate and refined woman, whose health had been undermined by a profuse discharge from fistula in ano, which, from motives of false delicacy, had been totally neglected by her former medical attendant. I examined the fistula, and, at the same time, attracted by her difficult breath-

ing, I examined her lungs and found her in the first stage of pneumonia. She was in the seventh month of pregnancy, and did well till October 2d, when the incessant cough brought on premature labor. She had a very easy labor, but two days afterwards she passed quietly away, worn out by a drain of pus that would have killed a giant.

Concerning the first case, it is remarkable that even a gross error of diet should prove fatal nearly three weeks after confinement; the second case, fatal by foudroyante scarlatina maligna, was doomed from the moment of attack; the third case really fell a victim to a neglected fistula in ano, for if there had been no fistula there would have been no death.

These three make up my list of fatal cases since March, 1857, twenty-four years and a half, during which time I have attended over two thousand cases. How was this result brought about? Certainly not by the possession of superior knowledge or skill, for I constantly meet with accoucheurs more skillful and better read. What then can account for a mortality of one case in seven hundred? To my mind, the following points explain the matter satisfactorily:

In the first place, I almost invariably give cimicifuga racemosa, in the form of macrotin, the second decimal trituration, for two or three weeks before confinement. I dissolve a small powder in four teaspoonfuls of water, and give a teaspoonful before each meal and before going to bed. I have done this from the beginning of my practice, and I am confident that it is of the greatest assistance to the patient.

In the second place, I always give chloroform during the labor. Formerly I used it on a handkerchief in the usual fashion, but accidentally I discovered that when it is given by inhalation from a bottle with a mouth one inch in diameter, it secures anæsthesia without abolishing consciousness. The patient gets just enough to lull the pain effectively, without, of course, interfering with the expulsive power, and not enough to make her unconscious. By the use of chloroform, the patient is spared the nervous shock of the labor, and to me the judicious administration of chloroform is one of the chief duties of the accoucheur.

In the third place, I always give arnica, externally and internally, after labor, unless, indeed, some other remedy is clearly

indicated. I give the third decimal dilution internally, and moisten a small bundle of soft rags with a solution of a few drops of the tincture in a cup of warm water and apply it to the vulva, changing every two hours. The womb and all the neighboring parts are tired and bruised, and nothing restores like the *panacea lapsorum*.

Dr. Bigler: I think we should be very particular in accepting the remedies recommended. I generally give arnica for a week or two before confinement, and have had no complications. I have also used cimicifuga, puls. and bell. with benefit.

Dr. Dudley: I have given cimicifuga for two weeks before labor in a number of cases, and feel satisfied from the result that this remedy does shorten labor, but that its action is limited to its power to relax the circular muscular fibres of the neck of the uterus. In examining such cases I find the os very soft and velvety. It seems to me as though I could get my hand through and pull the birth down. I have a patient, a relative, who used it in her labor, and apparently derived great benefit from it. The baby was born before the messenger, who was sent for me, reached the end of the lane, and the lady always had trouble at her confinements, which usually lasted forty-eight hours. A friend of hers came to me and asked if anything could be done. I told her if the tediousness of the labor was due to the rigidity of the circular fibres of the uterus, something could be done, otherwise not. She asked for some medicine, which I gave, and wrote the directions, stating that if the medicine was not used, to hand to some sister in distress. Some months after this lady called and told me to send some medicine to one of her neighbors in distress, as the occasion was the same as the previous one. Dr. Marsden first spoke of the remedy. In addition to cimicifuga, I have used caulophyllum on the following indications: frequent uterine pains before labor. I have used it several times, and give one drop of the first decimal dilution twice a day.

(Painful contraction in the uterus before labor, but does not facilitate labor. Cauloph.)

Cimicifuga relaxes the retaining fibres. Caulophyllum, during labor, increases the expulsive pain.

Dr. Betts: It is an important thing to consider, whether we can justly claim to mitigate the pains preceding and during labor. I think we do shorten labor by medication previously, and that medication during labor wards off a great many complications. There is no way of satisfying ourselves upon this point, except by keeping correct records of cases. The best plan of keeping such records is to write out, soon after parturition, a complete history of the labor, and if there are complications note them also. Such records would be of great use in second parturitions, for reference and comparison. It is satisfactory to the patient to know that the physician knows something of her previous confinements, and besides this, it is useful to the physician to have his memory revived. After a time, if good reports were gotten up from such records, we would have convincing evidence. I am convinced there are some remedies, such as gelsemium in rigid os, etc., that are thoroughly reliable. It is important to those who suffer that we present some statistics enabling us to distinguish the cases in which relief can be obtained by preliminary medication.

Dr. Detwiller: Dr. Betts' suggestions are good indeed. The contrivance of the author for administering chloroform from a wide-mouthed bottle so as to secure the relaxing effect, but not giving sufficient to make the patient unconscious, is an admirable one.

Dr. McClatchey: I do not believe we can give a remedy to produce relaxation of fibre unless it has a bearing upon the whole case. The object of the medication is to bring about normal action where it is abnormal. If the abnormality is in the cervix the effort should be to bring about a healthy action. I don't think one remedy brings on pain and another something else, unless given in physiological doses.

THREE HUNDRED CONSECUTIVE CASES OF OBSTETRICS OCCURRING IN PRIVATE PRACTICE.

BY MAHLON M. WALKER, M.D., PHILADELPHIA.

TABLE I.

Number of case.	Number of Pregnancy.	Sex.		Presentation.	Hours of Labor.	Time of Delivery.	REMARKS.
		Male.	Female.				
1	3	M.	..	V.	9	3 a.m.	
2	3	..	F.	V.	8	4 p.m.	
3	1	..	F.	V.	12	11 p.m.	Placenta retained six hours. Pulsatilla.
4	2	..	F.	V.	7	1 a.m.	
5	4	M.	..	V.	8	3 p.m.	
6	4	M.	..	V.	..	.....	
7	1	M.	..	V.	12	11 p.m.	Seven and a half months child, one club foot restored by pasteboard splint, applied a few days after delivery and continued till well.
8	1	..	F.	V.	..	.....	
9	3	..	F.	V.	..	.....	
10	4	M.	..	V.	10	6 p.m.	This baby had infantile tetanus from ulceration of the navel and inherent eruption. Sulph. 6m. and stram. 200 brought out the eruption and cured the case.
11	1	..	F.	V.	1	.....	Colored.
12	2	M.	..	V.	13	.....	
13	..	..	F.	V.	..	5 a.m.	
14	2	..	F.	V.	..	10 a.m.	
15	..	..	F.	V.	..	4.30 a.m.	
16	..	..	F.	V.	..	.....	
17	4	..	F.	V.	..	3 p.m.	
18	3	..	F.	V.	4	7 a.m.	
19	1	M.	..	V.	24	2 p.m.	
20	3	M.	..	V.	..	.....	
21	1	..	F.	V.	..	.....	After-pains severe for twenty four hours.
22	1	M.	..	V.	..	.....	Child died in two days.
23	4	..	F.	V.	..	.....	
24	2	M.	..	V.	..	.....	This mother was poisoned six years ago by an overdose of valerian. Same parents as in cases Nos. 44 and 74. Child died in two months from convulsions.
25	..	..	F.	V.	..	.....	
26	..	M.	..	V.	..	.....	
27	1	M.	..	V.	20	3 p.m.	
28	7	M.	..	V.	..	.....	Child six and one-half months, lived two days.
29	2	..	F.	V.	..	.....	
30	5	M.	..	V.	..	11 p.m.	
31	3	..	F.	V.	..	1 a.m.	
32	3	..	F.	V.	2	12.45 p.m.	
33	5	..	F.	V.	..	.....	
34	2	..	F.	V.	1	4 p.m.	Colored.
35	3	..	F.	V.	..	.....	
36	2	..	F.	V.	..	.....	
37	1	M.	..	V.	24	3 p.m.	Puerperal convulsions. Mother died immediately after birth of child.
38	1	M.	..	V.	..	.....	Child died ten minutes after delivery.
39	1	..	F.	V.	12	7 p.m.	

TABLE I.—*Continued.*

Number of case.	Number of Pregnancy.	Sex.		Presentation.	Hours of Labor.	Time of Delivery.	REMARKS.
		Male.	Female.				
40	1	M.	..	V.	..	.....	The father syphilitic, child covered with an obstinate herpetic eruption, spreading over the entire surface of the skin, the rings being one inch in diameter.
41	3	M.	..	V.	..	.....	
42	1	M.	..	V.	..	.....	
43	4	M.	..	V.	..	.....	Child died in eighteen days from hæmorrhage from the navel and jaundice.
44	3	M.	..	B.	38	11 p.m.	Breech. Water broke thirty-eight hours before birth; no pain till last six hours. Child died in spasms twenty hours of age.
45	4	..	F.	V.	..	.....	
46	3	..	F.	V.	..	.....	
47	3	..	F.	V.	15	1.30 a.m.	
48	3	M.	..	V.	..	.....	Father syphilitic; mother had facial paralysis for several weeks at birth of first child. Children apparently healthy. Same parents as 118.
49	2	..	F.	B.	..	11 a.m.	Breech. Colored. Right leg born and kicking when I arrived; extracted immediately.
50	1	..	F.	V.	20	2 a.m.	
51	6	..	F.	V.	..	.....	
52	1	M.	..	V.	24	3 a.m.	Twins, both males. Mother died in three weeks. Pericarditis and metritis.
53	1	..	F.	V.	..	.....	
54	1	..	F.	V.	24	2.30 p.m.	
55	1	M.	..	V.	12	12.15 a.m.	
56	8	M.	..	V.	..	.....	
57	1	..	F.	V.	..	.....	
58	2	..	F.	V.	6	9.30 a.m.	
59	6	M.	..	V.	..	11.45 p.m.	Five months fœtus. Died.
60	1	..	F.	V.	..	3.20 a.m.	
61	2	..	F.	V.	..	.....	Colored.
62	2	M.	..	V.	..	.....	
63	1	..	F.	V.	..	.....	
64	..	..	F.	V.	..	.....	
65	..	..	F.	V.	..	.....	Colored. Six and a half months fœtus; lived thirteen days. Died from aphthæ, marasmus and hæmorrhage from the lungs.
66	1	M.	..	V.	..	.....	Six and a half months fœtus; lived four hours.
67	2	..	F.	V.	..	.....	After nine days, mother had mammary abscess.
68	1	..	F.	V.	..	.....	
69	2	M.	..	V.	13	9 a.m.	
70	8	M.	..	V.	..	3 a.m.	
71	3	..	F.	V.	1	9 p.m.	Colored. Died from convulsions when six months old.
72	1	..	F.	V.	..	6.30 a.m.	
73	1	..	F.	V.	..	4 p.m.	
74	3	M.	..	V.	..	8.30 a.m.	
75	2	..	F.	V.	24	3.20 a.m.	
76	1	..	F.	V.	27	2.30 p.m.	Puerperal convulsions; recovered. Fœtus dead. Seven months. Bethel's forceps. Lacerated cervix.
77	2	M.	..	V.	8½	2.30 a.m.	
78	1	M.	..	V.	24	2.30 p.m.	Colored.
79	7	M.	..	V.	9	3 a.m.	
80	3	..	F.	V.	6	10.30 p.m.	
81	3	M.	..	V.	..	4 p.m.	

TABLE I.—*Continued.*

Number of case.	Number of Pregnancy.	Sex.		Presentation.	Hours of Labor.	Time of Delivery.	REMARKS.
		Male.	Female.				
82	1	..	F.	V.	..	7 p.m.	
83	1	M.	..	V.	..	11 a.m.	Colored.
84	1	..	F.	V.	..	4 a.m.	
85	1	..	F.	Face.	18	7.30 a.m.	Simpson's forceps. Chloroform.
86	3	M.	..	V.	..	9 a.m.	
87	1	..	F.	V.	24	6 a.m.	Simpson's forceps. Chloroform.
88	3	..	F.	V.	11	11.20 p.m.	Chloroform. Occiput posterior.
89	1	M.	..	V.	..	.....	
90	2	..	F.	V.	..	.....	Fœtus six and a half months; weighed one and a half pounds; lived till thirteen months old; weighed sixteen pounds; died from hydrocephalus. No teeth.
91	..	M.	..	V.	..	.....	Colored. Six months fœtus; lived an hour.
92	..	M.	..	V.	6	6 p.m.	
93	..	..	F.	V.	..	2.30 a.m.	
94	1	..	F.	V.	6	3 a.m.	
95	3	M.	..	V.	..	11.20 p.m.	
96	1	M.	..	V.	..	1.30 a.m.	
97	2	..	F.	V.	..	1.45 p.m.	
98	2	M.	..	V.	..	5 a.m.	
99	2	..	F.	V.	..	5 a.m.	
100	4	M.	..	V.	..	1.30 a.m.	
101	7	..	F.	V.	..	9 a.m.	
102	..	M.	..	V.	..	7.15 a.m.	
103	..	..	F.	V.	3	3 a.m.	
104	3	M.	..	V.	..	12 m.	
105	1	..	F.	V.	14	9.15 a.m.	
106	4	..	F.	V.	..	4 a.m.	
107	2	..	F.	V.	4	2 a.m.	
108	..	M.	..	V.	7	4 p.m.	
109	3	..	F.	V.	8	5.30 a.m.	
110	..	..	F.	V.	..	10 a.m.	
111	2	..	F.	V.	3	3 a.m.	
112	1	M.	..	V.	30	9.45 a.m.	
113	1	..	F.	V.	6	6 p.m.	
114	1	..	F.	V.	12	8 a.m.	
115	1	M.	..	V.	..	6.45 p.m.	
116	..	M.	..	V.	..	4.30 p.m.	
117	2	..	F.	V.	..	9 p.m.	
118	3	M.	..	V.	..	11.30 a.m.	
119	2	M.	..	V.	..	5.35 a.m.	
120	1	..	F.	V.	8	6.25 a.m.	
121	1	..	F.	V.	..	7.45 a.m.	
122	3	..	F.	V.	3	3.30 p.m.	Found dead in bed, aged three months.
123	1	M.	..	V.	..	11 p.m.	
124	..	..	F.	V.	..	1 a.m.	
125	1	..	F.	V.	..	12.10 m.	
126	..	..	F.	V.	..	12.05 m.	
127	..	M.	..	V.	..	3.25 a.m.	
128	1	M.	..	V.	..	10.05 a.m.	
129	1	M.	..	V.	..	7 p.m.	
130	..	..	F.	V.	..	1 p.m.	

TABLE I.—*Continued.*

Number of case.	Number of Pregnancy.	Sex.		Presentation.	Hours of Labor.	Time of Delivery.	REMARKS.
		Male.	Female.				
131	3	M.	..	V.	..	9.40 a.m.	
132	..	M.	..	V.	..	3 p.m.	
133	..	..	F.	V.	..	12 m.	Colored.
134	4	M.	..	V.	..	9.40 a.m.	
135	..	..	F.	V.	..	6.40 a.m.	
136	..	M.	..	V.	..	1.15 a.m.	
137	..	M.	..	V.	..	6.15 a.m.	
138	..	M.	..	V.	..	7 a.m.	
139	1	M.	..	V.	24	10.35 p.m.	Chloroform mixture. Simpson's forceps. Incompetent nurse; took cold; threatened with fever.
140	2	..	F.	V.	12	2.25 p.m.	
141	..	..	F.	V.	30	6 p.m.	
142	1	M.	..	V.	12	12.45 a.m.	Eight and one-half months. Epispadias.
143	2	..	F.	V.	3	11.45 a.m.	Colored.
144	14	..	F.	V.	46	1 p.m.	Wallace's long forceps. No anæsthetic.
145	2	..	F.	V.	5	2.10 a.m.	Colored.
146	1	..	F.	V.	5	8.55 a.m.	
147	2	M.	..	V.	8	1.45 p.m.	
148	6	M.	..	V.	5	11.30 p.m.	
149	1	M.	..	V.	36	1 a.m.	Simpson's forceps. Six months fœtus; lived two months.
150	1	M.	..	V.	10	.....	Child when seven months old was found dead in bed, while sleeping with the mother.
151	3	M.	..	V.	2	5.30 a.m.	
152	2	..	F.	B.	12	10 a.m.	Breech.
153	1	..	F.	V.	10	1.48 a.m.	
154	1	..	F.	B.	12	5 a.m.	Breech.
155	2	..	F.	V.	22	4 p.m.	
156	4	..	F.	V.	12	3.40 a.m.	
157	1	..	F.	V.	24	10 p.m.	Ether. Forceps. Delivered by two colleagues. Rupture of perinæum one and a half inches. Cystitis; used catheter nine days. Tied knees together; perfect union in two weeks.
158	4	..	F.	V.	2½	4.45 a.m.	
159	4	M.	..	V.	3½	2.20 p.m.	
160	1	M.	..	V.	16	10 p.m.	Ether and chloroform. Simpson's forceps. Rupture of perinæum one and one-fourth inches. Tied knees together; used catheter one week; perfect union without stitches.
161	4	M.	..	V.	19	11.05 a.m.	
162	2	..	F.	V.	22	3.15 a.m.	
163	8	..	F.	V.	30	5 a.m.	
164	4	..	F.	V.	6	2.30 a.m.	
165	3	..	F.	Left Hand.	18	1.20 p.m.	Tried by external manipulation, before bag of waters broke, to convert to breech presentation. So soon as membranes ruptured I performed version. and delivered a child weighing ten and three-fourths pounds, in forty minutes. Used ether.
166	1	M.	..	V.	8	2 a.m.	Head low; pains feeble. Ether. Hale's short forceps.
167	6	M.	..	V.	12	12.05 a.m.	
168	2	..	F.	V.	24	8 a.m.	Occipito-posterior.
169	1	M.	..	V.	14	5 p.m.	Alcohol, ether and chloroform mixture. Hale's short forceps. Version.
170	3	..	F.	V.	13	2.55 p.m.	Chloroform mixture for five hours.
171	2	M.	..	V.	36	7 p.m.	Postpartum hæmorrhage. Sabina, 200.

TABLE I.—*Continued.*

Number of case.	Number of Pregnancy.	Sex. Male.	Sex. Female.	Presentation.	Hours of Labor.	Time of Delivery.	Number of Hours in Attendance.	REMARKS.
172	2	M.	..	V.	30	12.30 p.m.	..	
173	3	..	F.	V.	30	7.30 p.m.	..	
174	3	M.	..	V.	10	8.15 a.m.	..	
175	1	M.	..	V.	11	11 a.m.	..	Central rupture of perinæum tore out zigzag to fourchette one and a half inches. Two silk sutures ulcerated out. Would not allow others to be inserted, or submit to subsequent treatment. Partially healed.
176	2	M.	..	V.	3½	3.30 a.m.	..	
177	4	..	F.	V.	6½	10.15 p.m.	..	Ether and chloroform. Hale's short forceps.
178	4	..	F.	V.	6	9.45 p.m.	..	
179	2	..	F.	V.	10	8.15 p.m.	..	
180	1	..	F.	V.	10	3.40 p.m.	..	Ether and chloroform. Hale's short forceps.
181	3	M.	..	V.	8	11.05 a.m.	..	
182	4	M.	..	V.	5	2.50 a.m.	..	
183	4	..	F.	V.	26	7 p.m.	..	
184	..	..	F.	V.	1	12.30 a.m.	..	
185	10	M.	..	V.	8	5.30 a.m.	..	
186	4	..	F.	V.	2	8.30 a.m.	..	
187	7	M.	..	V.	5	10.50 p.m.	..	
188	3	M.	..	V.	8	4.30 a.m.	..	
189	3	..	F.	V.	30	7.18 a.m.	..	Membranes ruptured thirty hours before birth. True labor ten hours. Mother had mammary abscess afterward.
190	5	M.	..	V.	12	2.40 a.m.	..	
191	4	..	F.	V.	12	7.45 p.m.	..	
192	4	..	F.	V.	1	5.15 a.m.	..	
193	3	M.	..	V.	3	2 a.m.	..	
194	1	M.	..	V.	10	10.15 p.m.	..	Ether and chloroform. Hale's short forceps.
195	3	..	F.	V.	3	4 a.m.	..	
196	2	..	F.	V.	13	1.45 p.m.	..	Same parents as 157 and 249.
197	1	M.	..	V.	15½	9.30 a.m.	..	Ether. Wallace's long forceps.
198	2	M.	..	V.	6½	12.30 m.	..	Acrania with cerebral hernia. See *Hahnemannian Monthly*, June, 1878.
199	14	M.	..	V.	31½	11.05 a.m.	..	Would not allow forceps used.
200	4	..	F.	V.	4¾	4.30 a.m.	3	
201	3	..	F.	V.	12	6 a.m.	7	
202	4	M.	..	V.	8⅓	2.22 p.m.	5	
203	2	..	F.	V.	7	3 a.m.	6	
204	11	..	F.	V.	22	10.15 p.m.	2	Mother blind for last ten years from explosion of coal oil lamp. Has borne four children since.
205	1	M.	..	V.	9½	10.30 a.m.	6	
206	2	..	F.	V.	7½	4.35 a.m.	7	
207	2	M.	..	V.	4½	4.30 a.m.	5	Occiput posterior. Mother threatened with puerperal fever. Small abscess in mamma followed.
208	8	..	F.	V.	8	9.15 p.m.	7	
209	1	..	F.	V.	12	12.15 p.m.	10	Ether and Hale's long forceps, by request. Mother very obese. Pulse above one hundred for four days afterward; no doubt from effects of ether.
210	1	M.	..	V.	4	1 p.m.	1½	
211	8	M.	..	V.	4	4.30 a.m.	1	
212	1	M.	..	V.	12	5.48 p.m.	4	
213	4	..	F.	V.	3	5 a.m.	Late.	Attending No. 211.

TABLE I.—*Continued.*

Number of case.	Number of Pregnancy.	Sex. Male.	Sex. Female.	Presentation.	Hours of Labor.	Time of Delivery.	Number of Hours in Attendance.	REMARKS.
214	2	..	F.	V.	4	2.47 a.m.	8	Postpartum hæmorrhage, controlled by manipulation externally, removal of clots, and sabina 200, in water, every five minutes.
215	1	M.	..	V.	7½	10.30 p.m.	9	
216	1	..	F.	V.	24	4.15 a.m.	6	
217	1	..	F.	V.	15	9 p.m.	12	Membranes ruptured seven hours before birth. Tedious labor.
218	1	M.	..	V.	10½	10.23 a.m.	11	
219	3	..	F.	V.	33	3.03 p.m.	22	Ether and chloroform; five hours.
220	1	..	F.	V.	25	5.08 a.m.	20	Ether and chloroform. Hale's long forceps. Laceration of perinæum two and a half inches, but not through sphincter; healed.
221	3	M.	..	V.	9	11.25 a.m.	Late.	Colored.
222	10	M.	..	V.	26	2 a.m.	4	
223	4	M.	..	V.	2	6 a.m.	Late sending.	Thirteen years since former birth. Secundines ruptured five days before birth; water came away gradually; nurse in attendance.
224	2	..	F.	V.	12	2 p.m.	..	Attended by colleague. Postpartum hæmorrhage.
225	3	M.	..	V.	14	5.20 a.m.	10	Feeble pains; mother obese; child small. Ether. Hale's long forceps. Same parents as in case 87 and another labor, all of which were similar and instrumental.
226	5	..	F.	V.	3½	12.30 a.m.	2	
227	2	..	F.	V.	12	7.10 a.m.	7	Child lived seven and one-half days. Post-mortem revealed the right ventricle of the heart undilated, no blood ever passed through it; foramen ovale covered by a perforated membrane, with several diamond shaped openings, 1-8 by 1-16 inch in size, through which blood passed to left auricle, and none to right ventricle. This accounted for cyanotic condition of child and death. Heart disease hereditary.
228	5	M.	..	V.	3	7 a.m.	2	Partial placenta prævia.
229	5	M.	..	V.	12	1.12 a.m.	7	
230	1	M.	..	V.	15	11.20 a.m.	13	Ether and chloroform four hours. Hale's long forceps. Lacerated perinæum one and a half inches; two silver wire sutures inserted; union perfect.
231	9	M.	..	V.	9	8.45 a.m.	8	
232	1	..	F.	V.	30½	5.30 a.m.	7	
233	1	..	F.	V.	27	10.23 p.m.	12	Ether. Hale's long forceps.
234	1	M.	..	V.	68	4.10 p.m.	4	Wallace's forceps. Ether. Laceration of cervix uteri in two places, and slight laceration of perinæum.
235	2	..	F.	V.	5	6.40 a.m.	3	
236	5	..	F.	V.	8½	6.40 a.m.	5	
237	9	..	F.	V.	12½	6.30 a.m.	7	
238	1	M.	..	V.	12	10.10 p.m.	10	
239	3	..	F.	V.	1½	8 p.m.	..	Late sending, owing to distance and shortness of labor.
240	2	..	F.	V.	2½	3.05 a.m.	3½	
241	5	M.	..	V.	2½	3.20 p.m.	2	
242	3	M.	..	V.	9	11.20 p.m.	4	
243	3	..	F.	V.	4½	10.30 p.m.	3	
244	1	M.	..	B.	18	4.15 p.m.	Late.	Secundines ruptured spontaneously six days before birth; child still-born. Breech.
245	1	..	F.	V.	20	7 p.m.	3	

TABLE I.—*Continued.*

Number of case.	Number of Pregnancy.	Sex.		Presentation.	Hours of Labor.	Time of Delivery.	Number of Hours in Attendance.	REMARKS.
		Male.	Female.					
246	3	M.	..	V.	2½	2.10 p.m.	Late.	
247	3	M.	..	V.	24	1.50 a.m.	15	Tedious labor.
248	6	..	F.	V.	8½	3.30 p.m.	....	Late in sending. Two miles distant.
249	3	M.	..	V.	½	3 a.m.	Late.	
250	3	..	F.	V.	12	6 p.m.	3	
251	2	..	F.	V.	4	3.50 p.m.	1½	First labor was No. 197. Wallace's forceps.
252	2	M.	..	V.	8½	7.28 a.m.	5	Same as No. 160. Perinæum tore again as before; would not allow it sewed up; knees kept together. Edges healed, but did not unite.
253	4	..	F.	V.	12	7.45 p.m.	2	Delivered by a colleague while I was away with the next case.
254	1	..	F.	B.	21	6.45 p.m.	10	Ether two hours. Extraction. Head large. Perinæum tense. Incised transversely across labia majora one and one-half inches long and one-half inch deep.
255	1	..	F.	V.	19½	11.35 p.m.	12	
256	4	..	F.	V.	42	11 p.m.	3	Dry labor; liquor amnii escaped forty-two hours before birth. No pain till eight hours before.
257	5	..	F.	V.	12	12 m.	....	Watched this case six hours, then was ten minutes late.
258	1	..	F.	V.	7	6 a.m.	8	
259	4	M.	..	V.	2¾	7.20 a.m.	2	
260	2	M.	..	V.	6	12.20 m.	....	Watched this case two hours, then was twenty minutes late at delivery. Same parents as No. 217.
261	3	..	F.	V.	12	5.20 p.m.	....	Late in sending for me.
262	3	..	F.	V.	12	8.15 a.m.	2½	
263	10	M.	..	V.	3	3.55 a.m.	4	
264	4	..	F.	V.	5	7 a.m.	2½	
265	3	M.	..	V.	13¼	5.15 p.m.	9½	
266	1	M.	..	V.	46	3.20 a.m.	22	
267	1	..	F.	V.	11	10.55 p.m.	4	
268	1	..	F.	V.	21	12.05 a.m.	12	Ether four hours. Delivered with Hale's long forceps.
269	4	..	F.	V.	7⅓	3.30 a.m.	3	From nervous excitement, the mother had occasional fever for nine days. Lame in one limb for some weeks after. Bore another child seventeen months later, and had an easy labor.
270	4	..	F.	V.	8	9.45 a.m.	5	
271	2	..	F.	V.	18	6.18 p.m.	6	
272	4	..	F.	V.	36	6 p.m.	Late.	Sent when child was one hour old.
273	2	M.	..	V.	2½	6.25 a.m.	1½	Ether. Perinæum lacerated one inch. Three silver wire sutures. Abscess in fourchette, very troublesome for three weeks; healed. Same parents as 220.
274	2	..	F.	V.	1	8.05 p.m.	1½	
275	2	M.	..	V.	15	9.50 p.m.	....	Late in sending.
276	9	..	F.	V.	¾	8.30 a.m.	....	Half hour late in sending.
277	9	..	F.	V.	30	6 a.m.	....	Late in sending.
278	2	..	F.	V.	15	8 p.m.	13	
279	2	M.	..	V.	14	12 m.	5	
280	3	M.	..	V.	12	9 a.m.	7	
281	6	..	F.	V.	12	1.10 p.m.	6	

TABLE I.—*Continued.*

Number of case.	Number of Pregnancy.	Sex. Male.	Sex. Female.	Presentation.	Hours of Labor.	Time of Delivery.	Number of Hours in Attendance.	REMARKS.
282	4	..	F.	V.	5	7 a.m.	Late sending.	Six months fœtus, born with secundines entire. Carried it home; maternal portion of placenta very small. A placenta spuria as large as my hand spontaneously delivered next day. Mother twenty-four years old; recovered in one week.
283	4	M.	..	..	14	5.30 a.m.	5	Child's fingers off beyond first joint on right hand.
284	1	M.	..	V.	28	4.10 p.m.	23	Ether six hours. Labor tedious. Hale's long forceps.
285	1	M.	..	V.	9	12 m.	8	
286	1	..	F.	V.	19	10.10 a.m.	5	
287	2	..	F.	V.	14	9.10 p.m.	2	
288	3	..	F.	V.	16⅓	3.25 p.m.	13	
289	7	M.	..	V.	30	10.30 p.m.	....	One and one-half hours late. Six miles away Still born. Mother forty-four years old.
290	4	M.	..	V.	3	5.40 p.m.	....	Late sending. Two miles away.
291	1	M.	..	V.	9	9.30 a.m.	6	
292	8	M.	..	V.	16	11 p.m.	....	One-half hour late sending.
293	5	..	F.	V.	3	6.55 p.m.	....	One-half hour late sending. Talipes varus both feet, helped somewhat by plaster casts, kept on till child was five months old.
294	2	M.	..	V.	9	3.05 p.m.	6	Slight pains for two days.
295	1	M.	..	V.	12	12.50 a.m.	8	False labor pains for two weeks. Woman nervous. Postpartum hæmorrhage, controlled by external manipulations and cimicif. 3x.
296	3	M.	..	V.	2	8.15 a.m.	1½	
297	1	..	F.	V.	10½	10.30 a.m.	11	Ruptured perinæum one and one-half inches. Two silver wire sutures inserted; healed perfectly in four days.
298	1	..	F.	V.	36	12.15 a.m.	5	Slow labor. Large woman; small, feeble child. Marasmus; lived three weeks.
299	2	..	F.	V.	3	4.15 a.m.	Late.	Perinæum stretched and lacerated. Two silk sutures; healed and contracted to proper shape. Rhus tox., 200.
300	1	M.	..	V.	21	7.30 a.m.	18	Slow labor. Squibb's ether ten and a half hours. Not unconscious till twenty minutes before birth. Hale's long forceps. Head low. Laceration of perinæum one-half inch. No stitches.

TABLE II.

Males,	136
Females,	164
White,	287
Colored,	13
Vertex presentations,	292
Breech "	6
Left arm "	1
Face "	1

TABLE II.—*Continued.*

Occiput posterior,	3
Partial placenta prævia,	1
Internal hæmorrhage,	4
Puerperal convulsions,	2
Podalic version,	2
Anæsthesia,	24
Forceps,	23
Laceration of perinæum,	9
" cervix uteri,	2
Acrania with cerebral hernia,	1
Other deformities,	4
Still-born children after seven months,	3
Day births, between 6 A. M. and 6 P. M.,	127
Night births, between 6 P. M. and 6 A. M.,	131
Time not known,	42
Shortest labor,	½ hour.
Longest labor,	68 hours.
Average of 209 labors,	13 hours.
Length of labors unknown,	91
Average number of hours spent in 85 cases,	6⅝ } of last 100.
Late in being called to,	13 } of last 100.
I was late in getting to,	5 } of last 100.
Threatened with puerperal fever,	6
Other forms of fever,	2
Mammary abscess, in at least,	5
Children born between five and six and a half months— One still-born, the others lived as follows: one hour, four hours, five hours, two days, thirteen days, two months and thirteen months.	8

The first case of obstetrics I ever attended was a college clinic case which happened March 3d, 1867, the morning after my graduation from the Homœopathic Medical College of Pennsylvania, and is not included in the preceding tables. These three hundred cases took place from February, 1868, to August, 1881.

After reading a paper presented to this Society in 1875 by Prof. A. R. Thomas, M.D., I saw the necessity of keeping a more correct account of my cases than I had heretofore done, and have been aided in so doing by the formulæ given in the visiting list of R. Faulkner, M.D., and the "Physicians' Obstetrical Register," by Jos. M. Reeves, M.D. A few of these cases were delivered by some of my colleagues while I was attending others, or away from home, and subsequently were visited by me. More than an equal number have been delivered for other physicians, which do not appear in this list.

Remarks.—Case 37. June 16th, 1872. This mother lost two brothers in Kansas, two months before her confinement—one

from typhoid fever, the other was killed. Grief and an unhappy marriage may have caused the puerperal convulsions from which she died in ten minutes after her accouchement.

The child, an eight months fœtus, lived twenty-four days, and died from marasmus and aphthæ, probably syphilitic. Dr. Thos. Moore attended this case in consultation with me.

Case 43. Delivered October 8th, 1872. During the war the father had been a prisoner in Andersonville about seventeen months, and nearly starved to death. The mother had been in delicate health for years. Their two older children, boys, appear healthy. The child preceding this one died, aged ten months, from purpura hæmorrhagica.

This child had a constant but passive hæmorrhage of venous blood from the navel, which all efforts failed to stop. Jaundice set in in a few days and continued with the hæmorrhage until its death, in three weeks. Post-mortem examination showed that the umbilical vein had not contracted and the action of the heart induced this passive hæmorrhage. Liver also enlarged.

Case 52. Twins, both males, born February 24th, 1873. Two years previous to her delivery, and while single, this woman had symptoms of effusion in the pericardium. Pregnancy and labor aggravated these symptoms. She could not lie down for months. In the wintry weather of February and March she would have the windows up, the fires became low at night, chilliness with flushes of fever followed, then pericarditis, terminating in her death when her boys were three weeks old. At the post-mortem examination, conducted by Dr. Thomas Moore and myself, we found metritis, peritonitis and pericarditis, with about a pint of water around the heart. With heart symptoms absent, I think she would have recovered.

Case 76. April 29th, 1874. About eleven A. M. this woman was taken with a convulsion. Dr. Thomas Moore, their physician, was called in. Other convulsions followed at intervals till two P. M., when she became unconscious; the convulsions then became more frequent, until she had nearly fifty in all. The urine was suppressed, but when secreted contained an abundance of albumen. I was invited to assist in the case in the afternoon. Prof. John J. Reese, M.D., of the University of Pennsylvania, was brought from the city in the evening, having attended her in adolescence.

Bell.[200] and opium very high had been given without effect. Dr. Reese recommended and the following prescription was administered:

℞ Potassæ Bromide ʒ ij
Hydrate Chloral ʒ j
Syrup Tolu ℥ j
Aqua ʒ ij
M. Sig.: A tablespoonful as directed.

MOORE.

Later in the evening a rectal injection of turpentine and sweet oil was given. Efforts to dilate the os uteri were made by means of Barnes' dilators, injections of water directly on the os, and with placental forceps. Toward morning we could introduce one blade of the forceps. Convulsions ceased during the night, but she remained unconscious.

Early in the morning Dr. Moore was called away, but returned at eight o'clock.

Prof. Reese left in the nine A. M. train, disheartened, after giving an unfavorable opinion in regard to the case. Dr. Moore and I took turns watching the case and attending our patients, deciding that whichever could introduce both blades of the forceps should deliver at once. At one P. M. I returned, labor pains had increased; at two P. M. I succeeded in introducing both blades of Bethel's forceps, and assisted by an Episcopal clergyman and some of the family I delivered at 2.30 P. M. a dead fœtus of about seven months. Immediately afterward I introduced my hand and scooped out the placenta and all clots. The uterus contracted properly, and unconsciousness continued fourteen hours longer, making forty hours in all. Two hours after delivery the attending physician took charge of the case and continued till the patient recovered.

In our efforts to dilate the os I suppose we must have torn the cervix uteri, which was subsequently overlooked. A year or two later a Chicago surgeon of the old school took great pleasure in sewing this up.

This lady has since desired children, and after the treatment in Chicago became more hopeful. In the spring of 1881 her anticipations were in a fair way to become realized, when much to her regret and without apparent cause an abortion of three months occurred.

CASE 106. This woman, at the age of forty-one, fractured her coccyx in May, 1874, and was for three months almost unable to walk, and gave birth to a still-born child December 10th. During the last three months of her pregnancy she had a slight spasm resulting in facial paralysis of the right side which continued for three or four months after delivery.

A month before and for some time after her accouchement their older children had scarlatina. The mother sustained no inconvenience from the presence of the scarlatinal poison, but had two accidental abortions within a year afterwards.

CASE 144. Delivered February 29th, 1876, fourteenth child, the mother forty-four years old. Had been in labor forty-six hours when I was called in; finding the woman exhausted and pains feeble, I went for Wallace's long forceps and delivered the child.

CASE 122. This child when three months old was found dead in bed in the morning about seven o'clock. The father arose between five and six o'clock and went to his work, while the mother took another nap and probably rolled on the child.

CASE 150. Within a year of the death of the above child, this one was also found dead at the age of seven months. The father went to work before 6 A. M., and, when the mother arose at seven o'clock, she found the child dead by her side with its nose flattened as though her arm had lain across its face.

The symptoms of asphyxia were present in both. I advise against children sleeping with their parents. If no cradle or crib has been provided for the little one, an ordinary clothes basket with a pillow placed in it is a good substitute. The basket with child can be put near the stove in cold weather, or out of a draft of air in mild weather.

CASE 169. This woman usually weighs 85 pounds, is still frail and delicate. March 8th, 1877, the secundines ruptured, followed by little pain. On March 11th at three A. M. labor set in, but had made little progress at four P. M., when I was called in. She was exhausted; I gave her ether, and applied Hale's short forceps. The child was small, the parietal bones indented, reducing the temporal diameter of the head to about two inches. The forceps sprang off repeatedly; I then turned and delivered by the feet.

The boy is bright and healthy. The indentations are still perceptible. Two subsequent children, I am told, were also delivered by forceps.

Case 220. Laceration of perinæum, two and a half inches. Dr. B. F. Betts, in consultation, inserted four wire sutures; union perfect, but tore again in case No. 273.

Case 234. Mrs. Van Dusen, M.D., was called to a German woman, Nov. 19, 1878, who had been in labor over sixty hours, under the care of some neighboring women. On examination, she found the head in the superior strait. The pains had been very severe but had ceased entirely. She sent for me, and on my arrival we completed the anæsthesia, applied Wallace's forceps, and delivered in one and a half hours, with laceration of the cervix uteri in two places, and slight laceration of the perinæum.

The placenta was delivered in fifteen minutes, apparently all right, but in half an hour there was considerable hæmorrhage, when I introduced my hand and found an hour-glass contraction of the womb, with a portion of the placenta at the fundus. This I tore away, manipulated the abdominal walls and uterus, and soon overcame this difficulty. The mother recovered in two weeks, and wished attention again in May, 1880. The child, a boy, was asphyxiated. We worked over him for two hours, but there seemed to be some trouble about his heart; he breathed spasmodically, and died in four hours, cyanotic.

Case 247. In very good condition one day previous for quick delivery. The mother took a chill on the second day after, and was threatened with puerperal fever, although in charge of an excellent trained nurse. Pulse 108, and above it; temperature reached 104.5. Sulph.^{6m} and bryonia^{200} were the remedies. She recovered in two weeks.

Case 254. Breech. This child's head was large, the perinæum tense. In delivering I incised the labia majora, according to the method used in Vienna, to hasten delivery and save the perinæum. The husband told me, some months later, there had been some contraction of the labia since the incisions, thereby causing some annoyance, that he thought no one but a skilled hand could have saved the child, which was asphyxiated, but restored in fifteen minutes.

CASE 283. The child was born with deformed right hand, the finger and thumb being off beyond the first phalanx. The child grew and was apparently healthy, except that it did not sleep properly. At the age of ten months it went into convulsions and died in five hours. There may have been something abnormal about this child's brain as well as hand. At present writing, I am attending a cousin of this child in consultation, a girl infant two weeks old, with the third phalanx off each little finger. It has irritation of the base of the brain, producing opisthotonos, light spasms, and other brain symptoms. The parents of this girl are cousins.

The Treatment of the Navel.—A few years ago non-ligation of the funis was fashionable. I tried it, and had several cases of hæmorrhage follow. I have also had hæmorrhage from a few cases which were ligated. I strip the cord *from* the child, ligate in two places, about an inch and a half apart, and cut. I hear that some of our prominent Philadelphia accoucheurs no longer dress the cord nor bandage the child. I have tried this in the last half-dozen cases, and believe it to be the proper method. The piece of cord dries up and drops off in three days, does not smell so strong, and there are no sore navels to perplex the nurse or annoy the child.

The Delivery of the Placenta.—I deliver the placenta by Neilton's or Crede's method, which consists in gentle traction upon the cord, while the other hand manipulates the abdomen at the fundus uteri, to excite uterine contractions. I sometimes use Playfair's method of manipulation and do not touch the cord. I have had two cords tender enough to tear off, with very slight traction. In one of these instances I introduced my hand and delivered; in the other, I reached the maternal surface of the placenta and brought it forth.

To Prevent Laceration of the Perinæum.—During the expulsive pains, I request the mother to throw her head back and keep her mouth wide open. It requires constant and decided orders to enforce this, and a few additional pains to give birth to the child. I have had children born so slowly by this means, that I think I have saved several lacerations thereby. I examine every woman after labor and have found three per cent. of them lacerated.

I sew them up immediately with silver-wire sutures, if over half an inch in extent, and thus do not risk further trouble, although many lacerations heal spontaneously if the knees are tied together and the catheter used, which is a great deal more trouble and more uncomfortable to the patient than a couple of sutures inserted immediately.

The Use of Anæsthetics.—In many of the European hospitals they used chloroform exclusively a few years ago. In the early part of my practice I did the same, knowing I was endorsed by J. H. Marsden, M.D., and other authorities. In 1878 I read Sansom on Chloroform, and began using Guy's hospital mixtures, half ether and half chloroform, or alcohol one part ether two parts, and chloroform three parts. Later, I have used only ether, and now prefer Squibb's manufacture. I have so far used ether in eight per cent. of my cases. I do not use it except where the pains are intense, protracted, the mother exhausted, or instrumental delivery necessary, and then only to the extent of partial anæsthesia till time for delivery. Every woman who has borne previous children without it advises you to never let another woman suffer when ether is such a blessing. Their thanks are overpowering. A mother of eight children who had never taken an anæsthetic, said she would like to give birth to another child for the purpose of taking ether. She had heard it was such a boon.

The greatest quantity of ether I have given to one woman is one pound, and the longest time of administration is ten and a half hours, in Case No. 300.

It acts as a stimulant in overcoming the tired, bruised feeling after labor, as well as arnica. "It does away with annoying useless pain, but does not influence the true pains of labor." (Sansom.)

The only case in which I have felt uneasy about its effects, was in No. 209, the woman being very large and fat. Her pulse stood above a hundred for four days, but she had no trouble after that.

The pulse remains above eighty in most cases for one or two hours after delivery, and I have found it necessary to stay and watch them. I also find this the case in many who have not taken ether. I usually visit my cases twice in the next twelve

hours after delivery, and manipulate the abdomen at every visit for a few days.

W. G. A. Bonwill, D.D.S., published last year, and again this year, a paper on 'Rapid Breathing as a Pain Obtunder.' Several of our physicians and accoucheurs are trying this. I am also using it, especially where I wish to complete narcosis, after administering ether for some hours.

Internal Hæmorrhage.—I have always controlled this complication by external manipulation, removal of clots, or portions of placenta, and internal medication with the proper remedy. Sabina has served most frequently, although belladonna, ipecac. and crocus have answered in one case each, and have been given in the 200th potency in water, every five minutes. In some cases of abortion and miscarriage, I have seen very quick results. I have never used a tampon.

Forceps.—Obstetrical forceps were invented by Hugh Chamberlain, M.D., an English physician, who lived from 1664 to 1728. The Chamberlains, father and son, kept their make and use a family secret, and amassed large fortunes in the practice of medicine. Their forceps were subsequently modified by Smellie and others.

In America, the above forceps were soon improved by several Philadelphia physicians, and the history of Philadelphia forceps was the history of American forceps until quite recent years. Among the first to improve the English forceps, was Professor Wm. Potts Dewees, of the University of Pennsylvania, who flourished from 1768 to 1841, and who raised the practice of midwifery in this country from an obscure and superstitious calling, pursued by incapable men and women, to that of a noble branch of the profession. Professor Hodge next improved the obstetrical forceps, which for years bore his name.

About thirty-five years ago John J. Bethel, M.D., made a great improvement over all former instruments, and of late years Prof. Ellerslie Wallace has revived the Bethel forceps, which are the most perfect fitting instruments I ever adjusted. No matter how much pressure you properly exert, they never injure either mother or child. Prof. Burdick, of New York, has improved the Elliot forceps by placing a gauge in the handle of each blade to regulate the pressure on the child's head.

The above are all long forceps. The Davis instrument is shorter, the Simpson heavier, while Tarnier has constructed a forceps into the blades of which you hook an extra pair of slender handles, in order to bring down the head a little more regularly as the ordinary handles approach the perpendicular.

Prof. Sawyer, of Chicago, improved a pair of light instruments, of some other physician's make, by putting on them handles with slender blunt hooks instead of scissor handles.

Prof. E. M. Hale, M.D., improved Sawyer's implements, by placing a kind of pistol-shaped handle upon them, and making both light and short, and heavier or longer forceps, the latter being nearly eleven inches long, while the former are an inch or more less.

I purchased the short slender forceps soon after they came out, and used them frequently, until they sprang partly off in several cases, and in readjusting them I scarred two children. I then exchanged them for his longer and stronger make, which I have used more than any others, and have not gone to a case of labor for four years without them.

Prof. Korndœrfer, M.D., about two years ago modified the McQuinney or short, strong forceps. These are only ten inches long, can be carried unobserved, as Hale's can also, in the coat pocket, and are just the "nickel plated hands" you want when the head is low. The handles of these are set at a different angle from any of the above, the blades are strong, the pressure properly equalized, and they have been used where the head was high.

With a pair of Wallace's Bethel's to use on the head high, and a pair of Hale's *strong*, or Korndœrfer's *short* forceps, to use on the head when low, a physician is furnished with the best obstetrical forceps extant.

Obstetrical instruments should be nickel plated, enclosed in chamois skin or woolen bags, and always ready.

Before I use the forceps, where practicable, I have a warm sitz bath administered. I let the mother assume any position which is most comfortable to her. Kneeling to a chair and moving the body from side to side has aided many, together with a remedy like puls., bell., cimicif. or caulophyllum to assist the natural pains of labor and save instrumental aid.

To ward off puerperal fever I think bryonia the very best remedy. I give the 200th in water every fifteen minutes or half hour, take the temperature and visit the patient every four to six hours till she is decidedly better. Sulphur seems to be necessary occasionally, and in one case lachesis was the only remedy that did any good.

In the fall of 1877 and spring of 1878 over a dozen women died in this vicinity with some form of puerperal fever under old school treatment, while not one died that was homœopathically treated. I had four women who were decidedly threatened with it, but were on their feet in two weeks after labor. Two of these had each a small mammary abscess follow, as a result of the poison.

SOME OF THE PUERPERAL DISEASES.

BY J. H. MARSDEN, A.M., M.D., YORK SPRINGS.

We limit the title of our paper by the indefinite pronoun "some," for we might as well attempt to chart the heavens upon a half sheet of note paper, as to treat all of this class of diseases in a dissertation fifteen minutes long.

Passing by hæmorrhages as accidents, although they may be, and doubtless sometimes are, symptomatic of disease, we will first notice a certain *painfulness*, or extreme tenderness in some spot of the abdominal region, as often one of the first things complained of after delivery. It may be pretty general, or confined to a single spot, usually to one side of the mesian line or in the flank. The pain is sometimes severe, leading the patient to make loud complaints. The causes of this affection are, no doubt, various. It may probably often be attributed to overstraining, pressure, etc., in the course of parturition. Ordinary cases usually subside in a few hours under the persistent administration of arnica. We might, perhaps, have passed this affection unnoticed, but our patients usually ask relief, and nothing more tends to augment their appreciation of our services, than our ability to relieve them of sufferings prolonged beyond the time when they had expected, in the delivery of the child, complete immunity from pain. If arnica fail, use atropine, third decimal.

Later in the lying-in period, but generally not beyond a few hours, or a day or two after birth, a most violent pain sometimes sets in, in the region above described, driving the patient almost to distraction. The part is usually very sensitive if rudely touched, but if contact be at first very gentle, pressure very gradually increased will be borne without complaint. The same is said if the patient's attention be diverted for the time from her sufferings. These attacks, which generally come on suddenly, often cause much alarm to the patient and her friends, as it is usually thought by them to be the commencement of peritonitis, or some other serious affection. It has, indeed, been termed false peritonitis, from its resemblance to the incipient stage of that terrible malady.

The most important distinctive characteristic between the two, perhaps, is the peculiar behavior of the former under pressure, just adverted to; whereas the latter has extreme and persistent tenderness. Both may be ushered in by chill, but the chill of true peritonitis is a more uniform precursor, and usually of greater severity, and perhaps of longer duration than in the other case, where it is only of occasional occurrence and mostly slight when it takes place. False peritonitis has generally been considered of a nervous or neuralgic character. Its cause may be found, perhaps, in the exhausted condition of the patient after labor, as cramps harass some persons after excessive fatigue. It may be sometimes attributable to the great stretching and overstraining of tissues during labor.

From this suffering the patient usually urgently demands relief. We are happy in being able to say that this can be, for the most part, very satisfactorily furnished. The first decimal trituration of acetate of morphia, given in water, a dose every half-hour till amendment, I believe has never disappointed me. Perhaps a higher attenuation would do as well—I have never tried it—but even this produces no symptoms of narcotism, if not continued longer than required, and I have therefore been disposed to let well enough alone. If I knew the ^{cm}. to answer as well or better I would prefer it, if for no other reason, upon the principle of economy. Atropine, third decimal, has also answered well, as it is also an excellent remedy in the affection first adverted to.

Next in order of the minor diseases of childbed, is the so-called milk-fever. This was once supposed to be the result of the excitement of the organism dependent upon the secretion of milk. As this secretion is a perfectly natural function, it ought not to be accompanied by any special organic disturbance. Such disturbance may, however, occasionally occur in very excitable women; and perhaps we should therefore regard milk-fever as two distinct forms of disease; the one dependent on over-action in the lacteal secretion, the other distinctly of septicæmic origin. The first of these may be prevented or modified by such hygienic measures as are calculated to keep down excitement; the other, by a careful administration of a solution of the tincture of arnica (eight or ten drops to half-tumbler of water) a teaspoonful every two hours, for the first twenty-four after the birth of the child. When this has been strictly attended to, I believe I have not seen this form of milk-fever make its appearance. When the other occurs, it is best treated with aconite. So seldom do I encounter any form of milk-fever, that I have almost forgotten its existence, and seldom, of late, think of inquiring about it. Did it exist to any appreciable extent, I should certainly hear of it. It is probable, however, that were that little meddlesome instrument the thermometer habitually used, there might appear some trifling exaltation of temperature, not otherwise noticed by either patient or physician; but when the thermometer alone perceives it, there is surely nobody hurt. But here I would not be understood to undervalue the delicate indications of that much misused instrument, as foreboding more serious troubles.

Formerly, milk-fever was expected with as much certainty as any of the phenomena attending childbirth. At the close of the second or beginning of the third day, we were told that the patient would experience headache, general malaise and rise of temperature. In homœopathic practice these are generally absent, and young women who have been subject to no other treatment, know nothing about them, do not anticipate them, and seldom or never speak of them. I am inclined to think that, even under allopathic treatment, milk-fever is not so common as it formerly was. If this be so, it is attributable to better hygienic management.

Having glanced at these minor troubles to which the parturient woman is liable, we proceed to devote most, if not all of our remaining space, to that ever to be dreaded malady, toxæmic puerperal disease, or as some would have us term it, puerperal or childbed fever.

This protean disease has been the subject of much discussion, both here and abroad, and physicians are now about as near an agreement, in regard to its nature and treatment, as they were half a century ago. Notwithstanding, however, the great divergence of views which still exists, much light has been thrown upon the subject by recent investigations. It is, perhaps, now pretty generally believed by the more advanced, that the disease in question is the result of a morbific agent acting upon the blood, which happens to be in such condition as to render it peculiarly susceptible to its impression. This susceptibility seems to be almost exclusively confined to the puerperal state. Precisely wherein it consists has not, so far as I know, been determined. Possibly, one element of it may be found in the then highly albuminous constitution of the blood. Another factor may be the depressed vitality of the patient, through gestation and parturition, rendering her incapable of resisting the encroachments of the blood-poison. This poison probably acts by catalysis, and if the catalyses through which healthy vital processes are carried on, are, from any cause, depressed, or for the time in abeyance, that of the morbific agent prevails, and the result is disease. The poison may be furnished by putrefying blood clots, and discharges within and from the womb. The door of entrance to the circulating fluid may be through abrasions of the reproductive organs, or possibly, in the form of vapors or gases through the lungs. One case is reported of a young woman, a nurse, a nullipara, not pregnant nor even at or near her catamenial period, but who, while nursing a bad case of puerperal fever, and inhaling freely the breath of the patient, contracted a disease, apparently the same, of which she died.

There is every reason to believe that the poison is sometimes, perhaps frequently, conveyed by the hands of the accoucheur to his unsuspecting patient, either carried from another sufferer in the same disease, or the result of his handling or dressing

putrescent wounds. A physician well known to me, lost several patients about one year ago, in close succession, of this terrible disease, whom he attended, while perhaps daily dressing the wounds of a man badly injured by the caving in of an ore bank. When the susceptibility is present, putrid matter from any source seems competent to develop the disease. Even the poison of malignant erysipelas, which is kindred to pyæmia, has this effect. Toxæmic puerperal disease may also, under peculiar circumstances, be generated by the contagion of some of the zymotic eruptive diseases.

But yesterday I saw a woman in very bad health, who told me that while attending a child in scarlet fever, she was seized with the pains of labor, and after delivery, had a prolonged attack of what the doctor told her was childbed fever. This occurred in February, 1881, and since then she has been an invalid. During her imperfect convalesence, desquamation of her hands and feet took place, but I could not learn that any of the other phenomena of scarlet fever attended her case.

We have spoken of the malady under consideration, as a protean disease. So diverse are its aspects that it is considered by many as constituting several distinct diseases. Demonstration of the truth of either view is difficult, if not impossible. We think, however, *that* the most simple and consistent with analogy which regards the varying phenomena of childbed fever as due to the same or a similar cause, acting upon different organisms, in somewhat different conditions, and with different susceptibilities. Thus we will find in one case the peritoneum principally affected, constituting an apparently well marked case of peritonitis. In another, pyæmic symptoms prevail, and the affection is called by those who insist on giving precise names to morbid processes, pyæmia. But however remote the organs affected in different cases, and however diverse the pathology, there exists a general family likeness from which we are led to the belief in a common origin. Time and space forbid me to enter into a minute description of the symptoms which characterize this dreaded and fatal disease. To do justice in this respect to its varying forms and modes of attack, I should be obliged to occupy more time and space than would be tolerated.

A general feeling of malaise, perhaps, usually precedes the more prominent symptoms of invasion. Sooner or later, chill supervenes, and this is followed by fever, often intense, and local pain in the region upon which the impact of the blood-poison most directly falls, perhaps, most commonly, the abdominal, at least in the first stage of the disease. Ordinarily, one organ after another becomes involved until, from the "crown of the head to the sole of the foot, there is no soundness." The pulse at first, perhaps, full and bounding, becomes, as the disease advances, remarkably small, feeble and quick, sometimes 160 per minute. The secretion of milk, if it had been established, is arrested, and the breasts become flaccid. The discharges from the womb are also usually diminished or stopped, and while they last, are commonly of a very putrid character. They are, however, sometimes not materially affected. Diarrhœa is occasionally troublesome, and vomiting, even of stercoraceous matter, not unfrequent. The power to evacuate the urine is sometimes lost, necessitating the continued use of the catheter. Tympanites, more or less marked, is usually an attendant upon the disease. The patient gradually sinks, showing more and more the progressive action of a fatal blood-poison, till delirium sets in and death closes the scene. Even before this final consummation takes place, the peculiar odor of the emanations from the body announce the dying or the death of tissue, and, especially if the patient have been of full habit, the corpse passes rapidly after death into a state of decomposition, and the form, perhaps once lovely and beloved, becomes a putrid mass, even before interment, from which the eye of affection itself turns away.

Considering, then, the fearful character of this disease, its rapid march when it has once set in, and its too frequent fatality, even under the best treatment, prevention becomes our main reliance. Fortunately, under favorable circumstances, we believe much can be done in this direction, and excepting when a supposed epidemic influence prevails, the occurrence of the malady may be rendered comparatively rare.

As it is believed the organism of the patient may for some time previous to confinement be undergoing a change, predisposing it to take on toxæmic puerperal disease, it becomes our duty to look

after her health prior to that important event. We should, if possible, ascertain her exact condition in regard to her vital functions, and if any of these seem to be imperfectly performed, we should carefully select the proper remedy. For instance, if the kidneys are defective in their activity we should endeavor to correct the defect by the proper remedy. Here, in many instances, ars. a. and apis m. will render important service. In short, whatever seems to be wrong we should endeavor to set right and bring the patient up to the time of confinement in the best possible health. Of course, if our services be not engaged till the last moment there will be no opportunity for this.

In the management of the labor our primary object should be, as far as possible to prevent suffering and consequent exhaustion of the vital powers. Upon this subject I cannot here go into detail. Suffice it to say we may use chloroform to annul extreme pain, and the forceps to accelerate tardy delivery. If any one possess better means let him resort to them. To shorten labor by legitimate measures and annul or diminish suffering is the mission of the accoucheur, or if this be not, he has none. Whatever will answer this purpose, not followed by countervailing evils, should be resorted to.

Care should be taken after delivery to prevent the accumulation of blood clots in the womb, or if accumulated to secure their expulsion at the earliest moment possible. I will here only refer to the use of small doses of ergot toward the close of labor to secure contraction. Other expedients for expulsion may be elsewhere learned. When delivery is followed by considerable flooding, great care is necessary to prevent septicæmic poisoning from putrescent matter. In that case it would be well to syringe the vagina daily with a very weak solution of carbolic acid in mildly warm water.

I have great confidence in arnica given directly after the child is born, and repeated every two hours for the first twenty-four. I think it not only tends to heal the usual lesions before septicæmic matter is formed, but probably acts as a direct antidote to blood poisoning. Since using it I have had but one case of the disease originating with me, and that was brought on by unpardonable recklessness on the part of the patient. When I think

there is threatening of invasion, I often follow arnica with ars. a. or baptisia tinc. according to symptoms. In such cases the patient should not be lost sight of until the pulse becomes normal or nearly so, and convalescence is fully established. In leaving her then, especially if she has had chills and other symptoms of blood poisoning, we should most solemnly caution her not to leave her bed until she is fully strong enough to do so without exhaustion, paying no regard to time, and to make no exertion beyond her easy endurance. A violation of this injunction is almost certain to recall threatening symptoms, and often to develop the disease in all its intensity.

In speaking of the treatment of this disease I cannot here go into detail. It is only the general principles I can state. Here, however, as elsewhere, we must depend upon similarity. As, however, we have abundant reason to believe the blood to be the tissue primarily affected, it is by its action upon the blood we must judge of the true homœopathicity of our remedy. Does the blood-poison by the action of catalysis attack the integrity of that fluid? Then we need a remedy of similar power—one that is capable of a similar catalytic action upon that fluid. This will probably be found amongst the agents that have been, with no great propriety, denominated antiseptics. Their agency here will not, however, be as antiseptics, but through similarity of action with the blood-poison. Two similar catalyses, according to the best physiologists, cannot continue to exist in the same structure at the same time—the one is necessarily destructive of the other. Unless I be greatly mistaken, the application of this principle will eventually constitute the most successful treatment of all zymotic diseases. Our allopathic brethren, in their game of blind man's buff, have already caught hold upon this class of remedies and apply it to a similar purpose but upon a different principle, if they have any. In this class of agents we find ars. a., bap. tinc., iod., brom., salicylic acid, sulphate of quinia, arseniate of quinia, chlorate of potassa, creasote, alcohol and many others. From these we must make our selection, of course upon the principle of similarity, as best we can, guided by what we know of their pathogenetic effects, especially upon the blood and the essential symptoms of the case before us. We have not yet attained to that profound knowledge

of the former which is necessary to very accurate practice, but we look for further disclosures at no distant day, through the revelations of the microscope and the advance of chemical science, especially animal chemistry. Different morbific agents acting upon the blood have no doubt their somewhat different and specific modes of action. This may also be said of the medicinal agents that make the same selection of tissue upon which to expend their force. What we then need is a deeper insight into the peculiar action of each, which may, in part at least, be attained by a thorough study of the changes that may be produced upon the blood, both by bane and antidote—by the morbific agent and the remedy. These are signalled, no doubt, in both cases, to some extent by the symptoms manifested, but a fuller knowledge of their pathology than we now possess is necessary that the therapeutist may be fully equipped for his duties.

I would gladly pursue this subject further, but knowing I have already trespassed upon the time of this Society I drop my pen. Before closing, however, I beg leave to tender my sincere thanks for the honor done me in retaining my name upon one of our most important bureaus for many years. In response to this favor I have humbly endeavored to discharge the duties growing out of that relation. But great as has been the pleasure this has heretofore afforded me, increasing years and failing health admonish me to contract the sphere of my duties relating to this life, and to leave to others such as inevitable circumstances oblige me to resign. Though perhaps still blessed with a laboring capacity beyond what is common to my years, I am constrained to adopt the language of the Roman poet addressed to his noble patron:

> Est mihi purgatam crebrò qui personet aurem
> Solve senescentem maturè sanus equum, ne
> Peccet ad extremum ridendus, et ilia ducat.

Dr. Wood: I wish to ask whether, in the experience of the members, lacerated perinæum more frequently results from the passage of the child's head or of its shoulders? I have seen several cases where the head was safely delivered, but after the shoulders were born there was a rupture.

Dr. Cooper: If, when the birth is forced down, the head

passes through the vulva and the pain subsides, and, the shoulders pressing upon the perinæum, the pains become irregular, in my experience there will almost certainly be a rupture, particularly if the perinæum is rigid. It is not ruptured by the absolute force of the expulsive power of the uterus. In my observation of a number of cases the rupture occurs for want of proper muscular action. As the birth advances some muscles should relax and others contract, but the former remain contracted and the force brought to bear produces the rupture.

Dr. Korndœrfer: I was so fortunate as to have in four weeks three cases of lacerated perinæum. Two of these cases were ruptured by the shoulders in natural labors. The third case was a natural labor terminated without any difficulty except pain. The head was delivered without any laceration that I could detect, but after the shoulders were delivered I found a laceration to the anus.

REPORT OF THE BUREAU OF CLINICAL MEDICINE.

Dr. W. J. Martin, chairman of the bureau, presented the following papers, which were read and referred:

Pruritus, by W. J. Guernsey, M.D.

Lachesis in Cerebro Spinal Meningitis, by H. Pitcairn, M.D.

Vinegar Treatment in Variola, by E. D. Doolittle, M.D.

Post Scarlatinal Dropsy, by Z. T. Miller, M.D.

Fragaria Vesca in Agalactia, by Z. T. Miller, M.D.

The Use of Alcohol in the Treatment of Zymotic Diseases, by J. H. Marsden, M.D.

Six Cases of Intermittent Fever, by Paz Alvarez, M.D.

Clinical Remarks, by H. N. Martin, M.D.

Local Causes of Diphtheria. Is it Highly Contagious? by J. E. Jones, M.D.

Epilepsy, by the Philadelphia County Society.

Observations on One Hundred and Eighteen Consecutive Cases of Typhoid Fever, by W. J. Martin, M.D.

PRURITUS.

BY W. J. GUERNSEY, M.D., PHILADELPHIA.

A nerve disturbance of reflex origin, unaccompanied by structural change; the objective symptonms of which are never primary, and as a secondary manifestation depend solely upon the irritation to which the skin has been subjected in scratching or topical medication. This affection, when general, is termed p. universalis, or in the aged p. senilis. When confined to certain parts is known as p. localis, or p. vulvæ, p. scroti, p. ani, etc., according to location. Its symptoms are purely those of sensation and are numerous, although mostly associated with *itching* as the name implies.

It is an affection of easy diagnosis and cannot be confounded with any other, save perhaps pediculosis, in which disease the sensations and scratch marks bear some resemblance, but which can readily be distinguished from it by the presence of the pediculi, and prurigo, which has been much confounded with it, especially by homœopathic writers. The latter disease has the development of papules as a primary symptom. Blood crusts are much more numerous, also the thickening and peculiar harshness of the skin. It is rare, much more so than imagined. Dr. Duhring asserts that it is almost unknown in the United States. Tilbury Fox states that it is pretty often seen in Vienna, but in England it is very uncommon, that with years of search for a case of the most marked form, such as Hebra describes, he found but one. Pruritus we all prescribe for seven days in every week. So far as treatment is concerned it is no exception to the rule that homœopathy needs no adjuvants. Why any homœopathic physician should ever resort to other means of cure than his legitimate medication, when he has a materia medica particularly rich in subjective symptoms, is indeed a mystery. The similimum will always cure if correctly administered. Two or three doses of the highest attainable potency should be given in the first day between the time of prescribing and the patient's usual hour of retiring, and no more medicine for several days under any consideration. If improvement begins give no medicine until it ceases. Very often a pruritus of long standing will disappear on the first night

after medication and remain a perfect cure. It was my intention in framing this paper to append a complete repertory of all remedies homœopathic to this disorder, but as this cannot be given in full without asking too much indulgence, I shall omit all local symptoms and give only such forms of itching as occur in general upon the surface of the body. To obtain these I have searched Bœninghausen's Therapeutic Pocket Book, Allen's Symptom Register, Jahr's Diseases of the Skin, and Lippe's Repertory, from cover to cover, and every symptom of itching not referring to locality, selected. Further, all other sensations such as burning, stinging, etc., were examined and those having itching mentioned in conjunction were accepted. Thus Allen mentions itching in association with other sensations under twenty-seven different heads. The valuation of the remedies given under each head is a rating obtained by comparison of the authors cited. There are in all one hundred and fifty symptoms with as many more references, arranged in alphabetical order, and divided into four sections as follows: Sec. I, the character of itching; II, aggravations; III, ameliorations, and IV, the results of scratching, so far as subjective symptoms are concerned. Comparisons have been noted under nearly every symptom, that nothing may be overlooked.

The following will suffice by way of explanation of marks:

The figures before remedies indicate their value, 4 being the highest, 3 next in order, then 2, and lastly 1, the lowest in the scale of similitude. The "equal" mark (=) means see or *refer to* the symptom indicated.

Section I. Character of Itching.

1. Itching (in general).—

4 Acon. n.	1 Acon. cam.	1 Æscul.	1 Æthus.	2 Agaric.	3 Agnus.
1 Allium c.	1 Aloes.	1 Alumen.	2 Alumina.	2 Ambra.	2 Am. c.
2 Am. m.	2 Anac.	1 Angus.	1 Anthrok.	3 Ant. c.	1 Ant. s.
1 Ant. t.	3 Apis.	3 Apocy.	1 Arg. met.	3 Arg. n.	2 Arnica.
2 Arsen.	1 Ars. iod.	1 Artem. ab.	1 Arum t.	1 Asafœ.	1 Asar.
1 Atro.	1 Aurum.	3 Bary. c.	2 Bella.	1 Benz. ac.	1 Berb. v.
1 Bism.	1 Bom. pro.	1 Borax.	2 Bovista.	1 Brach.	1 Brom.
1 Brucin.	3 Bryon.	1 Bufo.	1 Cad. sul.	1 Cajup.	2 Calad.
2 Calc. c.	1 Calc. j.	1 Calc. p.	1 Calend.	1 Camph.	1 Canna.
1 Cannab. s.	2 Canth.	2 Caps.	1 Carb. a.	2 Carb. v.	1 Carbon ox.
1 Carbon sul.	3 Caust.	1 Cham.	2 Chel.	2 China of.	1 China su.

1. Itching (in general)—*Continued.*

1 Chlor.	1 Cicut.	1 Cina.	1 Cinnab.	1 Cist.	1 Citr. v.
1 Clem.	2 Coccul.	1 Coc. cac.	1 Codein.	1 Coff. c.	1 Coff. t.
2 Colch.	1 Colo.	3 Como.	2 Coni.	1 Corn. c.	1 Creos.
1 Croc.	1 Crotal.	1 Cro. tig.	1 Cubeb.	1 Cu. met.	1 Cu. sul.
2 Cycla.	1 Daph.	2 Dig.	1 Dios.	1 Dolich.	2 Dros.
1 Dulc.	1 Elaps.	1 Electr.	2 Euphor.	1 Euphras.	1 Euony.
1 Eupi.	1 Evon.	1 Fago.	1 Fer. mag.	1 Fer. met.	1 Fer. mu.
1 Ferula.	1 Flu. ac.	1 Form.	1 Franz.	2 Gal. ac.	1 Gamb.
1 Gastein.	1 Gins.	1 Gossyp.	3 Granat.	3 Graph.	1 Grat.
1 Guaj.	1 Guare.	1 Hamam.	1 Hel. n.	2 Hep. s.	1 Heracl.
1 Hyd. ac.	1 Hydrocot.	1 Hyos.	1 Hura.	2 Igna.	1 Imper.
1 Iod.	1 Indig.	1 Inula.	1 Ipec.	2 Iris f.	1 Iris v.
3 K. ars.	1 K. bich.	1 K. brom.	3 K. carb.	1 K. chlor.	1 K. iod.
1 K. nit.	1 Kalmia.	3 Lach.	1 Lac. ac.	1 Lachnan.	1 Lauro.
3 Ledum.	1 Leptan.	1 Lil. t.	1 Linn.	1 Lob. syl.	1 Lolium.
1 Lupul.	4 Lyco.	1 Mag. c.	1 Mag. m.	1 Mag. s.	2 M. arct.
1 M. austr.	1 Manc.	1 Mangan.	1 Mar. v.	1 Menisp.	1 Meny.
1 Meph.	1 Mercurial.	1 Merc. cor.	1 Merc. j. f.	1 Merc. sol.	4 Merc. v.
1 Merl.	3 Mezer.	1 Mgs.	1 Morph.	1 Mosch.	2 Mur. ac.
1 Myrica.	1 Nabalus.	1 Naja.	1 Na. carb.	1 Na. mur.	1 Na. phos.
1 Na. salis.	1 Narcot.	1 Nicc.	1 Nit. ac.	2 Nux v.	1 Œnanth.
3 Oleand.	1 Ol. ani.	1 Opi.	1 Pallad.	2 Paris.	1 Pedicu.
1 Penthor.	1 Persica.	1 Petrol.	1 Phell.	1 Phos.	2 Phos. ac.
1 Phyto.	1 Pin. sil.	1 Plan. maj.	3 Plat. met.	1 Plumb.	1 Podo.
1 Polyp.	1 Prun. s.	3 Psorn.	1 Ptelea.	4 Pul. nig.	4 Puls. pra.
2 Ran. bulb.	1 Ran. scel.	1 Raphan.	1 Ratan.	1 Rheum.	2 Rhodo.
4 Rhus tox.	1 Rhus v.	1 Rumex.	2 Ruta.	3 Sabadil.	1 Sabin.
1 Samb.	1 Sapon.	2 Sarsap.	3 Scilla.	1 Sco.	1 Scro.
1 Secale.	2 Selen.	1 Senega.	3 Sepia.	4 Silicea.	1 Sol. nig.
3 Spig.	4 Spong.	1 Spirea.	1 Stan.	4 Staph.	1 Stram.
1 Stron.	1 Strych.	4 Sul.	1 Sul. ac.	1 Sumb.	1 Tabac.
1 Tarax.	1 Tarent.	1 Tax.	1 Tellur.	1 Teplitz.	3 Thuja.
1 Thea.	1 Tilia.	1 Tril.	1 Urt. u.	1 Valer.	3 Verat.
1 Vespa.	1 Vinc.	1 Viol. o.	3 Viol. tri.	1 Voslan.	1 Wies.
2 Zn. met.					

1. Itching, aggravated by rubbing,=Section II.
— " " **scratching,**=Section II.
— " **agreeable,**=23.
— " **ameliorated by rubbing,**=Section II.
— " " **scratching,**=Section II.
— " **ants, as from,**=15.
2. " **biting,** (compare corrosive, insects, pinching, sticking and stinging).

3 Agnus.	1 Alumina.	2 Am. c.	2 Am. m.	3 Angus.	2 Ant. c.
1 Ant. t.	1 Arnica.	1 Bella.	2 Berb.	1 Borax.	1 Bovis.
3 Bryo.	2 Calc. c.	1 Camph.	2 Canth.	1 Caps.	1 Carb. an.
2 Carb. v.	3 Caust.	1 Cham.	1 Chel.	2 Chin. of.	1 Coccul.
2 Colch.	1 Coloc.	1 Coni.	2 Dros.	3 Euphorb.	1 Grat.
1 Hell.	2 Ipec.	1 Ka. nit.	3 Lach.	4 Led.	3 Lyc.
1 Lact.	1 Mag. c.	2 M. arct.	1 M. austr.	1 Mangan.	2 Merc. v.
3 Mez.	1 Mur. ac.	1 Na. c.	1 Na. m.	2 Nux. v.	3 Oleand.
1 Ol. ani.	1 Opi.	1 Petrol.	1 Phos.	2 Ph. ac.	2 Plat.
1 Phell.	4 Puls.	2 Ran. bul.	2 Ran. sc.	1 Rhodo.	2 Rhus t.
2 Selen.	2 Sepia.	3 Sil.	2 Spig.	3 Spong.	1 Staph.
1 Stron.	3 Sul.	2 Thuja.	1 Verat.	1 Viola t.	1 Wies.
2 Zn. met.					

3. Itching, burning (compare corrosive). 3 Acon. 2 Agar. 1 Alum.

2 Ambra.	1 Am. c.	2 Anac.	2 Ant. c.	1 Apis.	1 Arg. m.
2 Arn.	3 Ars.	1 Asaf.	1 Asar.	1 Arum.	2 Bary. c.
3 Bella.	1 Berb. v.	1 Bism.	1 Borax.	1 Bovist.	4 Bryo.
2 Calad.	2 Calc. c.	1 Calc. p.	1 Camph.	1 Can. sat.	1 Canth.
2 Caps.	1 Carb. an.	2 Carb. v.	3 Caust.	1 Cham.	1 Chin. of.
1 Cicut.	1 Clem.	2 Coccul.	1 Coff.	2 Colch.	1 Colocy.
1 Coni.	1 Creos.	1 Crot. tig.	1 Cu. met.	1 Dig.	1 Dros.
1 Dulc.	2 Euphor.	1 Glon.	2 Graph.	1 Grat.	1 Guaj.
1 Hell.	3 Hep.	2 Hyos.	2 Igna.	1 Iod.	3 K. carb.
1 K. nit.	1 Kal.	4 Laches.	1 Laur.	2 Led.	4 Lyco.
1 Mag. c.	1 M. arct.	1 M. austr.	1 Mangan.	1 Mar. v.	1 Meny.
3 Merc. v.	3 Mez.	1 Mgs.	1 Mur. ac.	1 Na. c.	1 Na. m.
1 Nit. ac.	2 Nux m.	2 Nux. v.	2 Oleand.	1 Ol. ani.	2 Opi.
1 Petrol.	3 Phos.	2 Ph. ac.	2 Plat. m.	1 Plumb.	1 Phell.
3 Puls.	2 Ran. b.	1 Rhod.	3 Rhus t.	1 Ruta.	2 Sabadil.
1 Samb.	1 Sarsap.	3 Scill.	1 Secale.	2 Selen.	1 Seneg.
3 Sepia.	4 Sil.	3 Spig.	1 Spon.	1 Stan.	2 Staph.
1 Stram.	1 Stron.	2 Sul.	2 Verat.	2 Viol. od.	2 Viol. tr.
1 Zn. met.					

4. Itching, burning (ending in).—

	1 Ambra.	1 Coni.	1 Graph.	1 Lyc.	1 Mag. c.
1 Merc. v.	1 Opi.	1 Puls.	1 Rhus t.	1 Sepia.	1 Silicea.

5. Itching, burning, stitches,—1 Nux. v.

6. " " **subcutaneous,**—1 Merc. cor.

— " **changing about,**=35.

— " " **to burning,**=4.

— " " **on scratching,**=Section IV.

7. " **corrosive,** (compare biting and burning). 2 Agar. 4 Agnus.

2 Alum.	1 Ambra.	1 Anac.	2 Ant. cr.	2 Arg. m.	1 Arsen.
3 Bary. c.	1 Bella.	1 Berb. v.	1 Bism.	2 Bry.	2 Canth.
2 Caps.	1 Caust.	1 Cham.	1 Clem.	1 Coccul.	1 Coni.
2 Cycla.	2 Dig.	2 Dros.	1 Euphor.	1 Evon.	2 Graph.
1 Guaj.	1 Hell.	1 Hep.	1 Hyos.	2 K. carb.	2 Kal.
3 Led.	4 Lyco.	1 M. austr.	2 Meny.	2 Merc. v.	2 Mezer.
1 Mgs.	1 Na. carb.	1 Nux v.	4 Oleand.	2 Paris.	1 Phos.
2 Ph. ac.	4 Plat.	2 Puls.	1 Phell.	2 Ran. scel.	1 Rhod.
2 Rhus t.	1 Rhus v.	2 Ruta.	2 Scill.	2 Sepia.	2 Spig.
3 Spong.	1 Stan.	4 Staph.	2 Sul.	1 Tarax.	2 Thuja.
2 Verat.	1 Vin.	1 Zinc.			

8. Itching, crawling, (including formication. Compare insects and titillation).

2 Acon.	1 Acon. c.	1 Acon. f.	1 Aconin.	2 Agnus.	1 Alco.
2 All. s.	1 Aloes.	3 Alum.	1 Am. c.	2 Arg. m.	1 Arsen.
1 Arund.	1 Aurum.	3 Bary. c.	1 Bella.	2 Berb. v.	2 Borax.
1 Bovista.	1 Bruc.	1 Calc c.	1 Calc. p.	1 Can. Ind.	1 Can. sat.
1 Caps.	2 Carb. v.	1 Card. b.	3 Carl.	2 Caust.	1 Ced.
1 Chel.	1 Chin. of.	1 Cist.	1 Colo.	1 Coniin.	1 Coni.
1 Croc.	1 Dulc.	1 Eth.	1 Euo.	1 Euphra.	1 Fago.
1 Fer. met.	1 Guare.	1 Ham.	2 K. carb.	1 Lach.	3 Laur.
2 Led.	4 Lyc.	1 Mag. c.	1 Mag. m.	1 M. austr.	1 Mangan.
1 Merc. cor.	1 Merc.j.ru.	1 Merc. v.	1 Mezer.	2 Mur. ac.	1 Morph.
1 Na. carb.	1 Nit. ac.	1 Ni. s. d.	3 Nux v.	3 Oleand.	1 Ol. ani.
1 Ol. j.	1 Pallad.	1 Paris.	1 Phos.	2 Ph. ac.	3 Plat.
1 Plumb.	1 Puls.	2 Ran. b.	1 Ran. s.	3 Rhod.	3 Rhus t.
2 Sabad.	3 Secale.	1 Selen.	3 Silic.	2 Spig.	2 Spong.
4 Staph.	1 Stram.	3 Sul.	1 Tabac.	1 Tarax.	3 Tarent.
1 Thuj.	1 Verat.	2 Zn. met.			

9. **Itching, crawling, subcutaneous,—**
1 Am. mur. 1 Clem. 1 Na. carb. 1 Zn.
— " **creeping,**=8.
10. " **darting,**—1 All. s.
— " **drawing,**=30.
11. " **dull,** (compare painful and soreness.)—1 Hep. s.
— " **eating in,**=7.
12. " **electric stitches, like,** (compare prickling, sticking, stinging and stitches.)—1 Agar. 1 Nit. ac. 1 Phell.
— " **ending in burning,**=4.
— " **fleas, as from,**=16.
— " **formication,**=8.
13. " **frostbite, as from,**—3 Agar.
— " **gnawing,**=7.
14. " **insects, as from,** (compare biting, crawling, sticking stinging and titillation)— 1 Atro. 1 Plat. met.
15. " **insects, ants, as from,**— 1 Lach. 1 Phos. 1 Puls. 1 Secale.
16. " " **fleas,** " —
1 Arg. met. 1 Iod. 1 Lyc. 1 Mag. c.
1 M. arct. 1 Mar. v. 1 Merc. v. 1 Mez. 1 Nat. carb.
1 Nicc. 1 Ol. ani. 1 Puls. 1 Silic. 1 Spong.
1 Staph. 1 Tabac. 1 Thuj. 1 Zinc.
17. **Itching, insects, lice, as from—**
1 Arg. met. 1 Canth. 1 Mag. m. 1 Plat. m. 1 Zinc.
18. " **insects, mosquitoes, as from,** (compare nettles,)— 1 Rhus v.
— " **intolerable,**=33.
19. " **jerking,** (compare stitches and tearing,)— 1 Calc. c.
1 Caust. 3 Lyco. 1 Na. m. 2 Puls. 1 Rhus t. 1 Staph.
— **Itching, lice, as from,**=17.
— " **mosquitoes, as from,**=18.
20. " **nettles, as from,** (compare mosquitoes,) — 1 Calc. p.
1 Colch. 1 Lupul. 1 Lycps.
— **Itching, not relieved by scratching,**=Section IV.
21. " **painful,**— (compare dull and soreness,) 1 Alum. 1 Am. c.
1 Bary. c. 1 Chamo. 1 Coccul. 1 K. nit. 1 Lupul.
22. **Itching, pinching,**— (compare biting), 1 Mosch.
23. " **pleasant,** (compare voluptuous),— 1 Merc. v.
— " **pricking,**=26.
24. " **prickling,** (compare electric stitches, nettles, sticking and stinging)
2 Acon. 2 Agnus. 2 Alum. 2 Am. m.
1 Anac. 1 Angus. 1 Ant. c. 1 Ant. t. 1 Arg. m. 3 Arnica.
1 Ars. 2 Asaf. 1 Asar. 1 Aur. 3 Bary. c. 2 Bell.
1 Bovist. 4 Bryo. 1 Calad. 2 Calc. c. 1 Camph. 1 Can. s.
2 Canth. 1 Caps. 1 Carb. an. 1 Carb. v. 3 Caust. 1 Cham.
1 Chel. 2 China o. 1 Cina. 1 Clem. 3 Coccul. 1 Colch.
3 Coni. 1 Creos. 3 Cycla. 1 Dig. 3 Dros. 1 Dulc.
1 Euphor. 2 Euphra. 4 Graph. 1 Guaj. 2 Hell. 1 Hepar.
1 Hyos. 2 Igna. 1 Iod. 3 K. carb. 1 K. nit. 2 Lach.
2 Laur. 2 Led. 2 Lyc. 1 Mag. c. 1 Mag. mur. 2 M. arct.

24. Itching, prickling—*Continued.*

1 M. austr.	1 Mangan.	1 Mar. v.	2 Meny.	3 Merc. v.	2 Mezer.
1 Mgs.	1 Mosch.	3 Mur. ac.	2 Na. carb.	3 Na. mur.	2 Nit. ac.
1 Nux v.	2 Oleand.	1 Opi.	2 Paris.	2 Petrol.	2 Phos.
1 Ph. ac.	2 Plat.	1 Plumb.	4 Puls.	1 Ran. b.	2 Ran. s.
1 Rhus t.	1 Selen.	3 Sepia.	3 Silic.	3 Spig.	4 Spon.
3 Stan.	3 Staph.	1 Stram.	1 Stron. c.	3 Sul.	1 Sul. ac.
1 Tabac.	2 Tarax.	3 Thuja.	1 Valer.	4 Viola t.	2 Zinc.

24. Itching, rubbing causes,=Section IV.
— " **scratching causes,**=Section IV.
— " **severe,**=33.
— " **shifting,**=35.
— " **shooting,**=10.

25. " **soreness,** (compare dull and painful),—

				2 Alumina.	1 Ambra.
3 Arg. met.	1 Aurum.	1 Berber. v.	2 Bryo.	2 Calc. c.	1 Can. sat.
1 Cicuta v.	1 Colch.	1 Dros.	3 Graph.	2 Hep. s. c.	2 K. carb.
2 Led.	2 Lyco.	1 Mag. c.	2 M. arct.	1 M. austr.	1 Mangan.
2 Merc. v.	2 Mezer.	1 Mgs.	1 Na. carb.	1 Na. mur.	1 Nit. ac.
2 Nux v.	2 Oleand.	1 Paris.	1 Petrol.	4 Plat. m.	2 Puls.
2 Rhus t.	1 Ruta.	1 Sabina.	1 Sarsap.	2 Squilla.	3 Sepia.
2 Sil.	2 Staph.	3 Sul.	1 Valer.	2 Verat. a.	3 Zinc.

— **Itching, sparks of electricity, as from,** =12.

26. " **sticking,** (compare biting, electric stitches, insects, nettles and prickling,)—

		1 Bella.	1 Brom.	1 Caps.	1 Carb. v.
1 Fluor. ac.	1 K. carb.	1 Mag. c.	1 Ol. j.	1 Samb.	1 Zinc.

— **Itching, sting—nettles, as from,**=20.

27. " **stinging,** (compare biting, electric stitches, insects, nettles, prickling and sticking,)—

					2 Agnus.
1 Alumina.	1 Anac.	1 Angus.	1 Ant. c.	2 Arg. m.	2 Arni.
2 Asaf.	1 Aur.	1 Bary. c.	1 Berb. v.	3 Bryo.	1 Calad.
1 Calc. c.	1 Camph.	1 Can. sat.	1 Canth.	1 Caps.	1 Carb. v.
1 Caust.	1 Cham.	1 Chin. o.	1 Coccul.	1 Colch.	2 Coni.
1 Coral.	2 Cycla.	1 Dig.	3 Dros.	1 Dulc.	1 Euphorb.
1 Euphras.	2 Graph.	1 Hep.	1 Hyos.	2 Igna.	1 Iod.
3 K. carb.	1 K. nit.	1 Kal.	1 Lach.	1 Laur.	2 Led.
1 Lyc.	1 M. arct.	1 M. austr.	1 Mangan.	1 Mar. v.	1 Merc. v.
1 Mezer.	1 Mgs.	1 Mosch.	1 Mur. ac.	1 Na. c.	1 Na. m.
1 Nit. ac.	1 Nux v.	2 Oleand.	1 Opi.	1 Petrol.	1 Phos.
1 Ph. ac.	1 Plat.	1 Plumb.	3 Puls.	1 Phell.	1 Prun.
1 Ran. b.	2 Ran. s.	3 Rhus t.	1 Ruta.	1 Rhab.	1 Sabad.
2 Sabin.	1 Samb.	1 Sars.	2 Squilla.	1 Sepia.	1 Silicea.
2 Spig.	4 Spong.	1 Stan.	3 Staph.	1 Stram.	1 Sul.
1 Tabac.	1 Tarax.	2 Thuya.	2 Verat. al.	3 Viol. tr.	1 Zinc.

28. Itching, stinging stitches, (compare electric stitches, jerking and sticking,)

1 Agar.	1 Coni.	1 Lauro.	1 Lachn.

29. Itching, stitches, (compare jerking and sticking,)—

			1 Carbn. s.	1 Dig.	1 Dulc.
1 Lachn.	1 Nit. ac.	1 Psori.	1 Rumex.	1 Spong.	3 Staph.

— **Itching, stitches, burning,**=5.
— " " **electricity, as from,**=12.
— " " **stinging,**=28.
— " **subcutaneous, with burning,**=6.

30. " **tearing,** (compare jerking,)—

				3 Bell.	2 Bry.
3 Lyc.	2 Silicea.	3 Staph.	2 Sul.	1 Zinc.	

— **Itching, tickling,**=32.

31. Itching, tingling, (compare prickling,)—

		3 Acon.	2 Alum.	2 Ambr.	2 Am. c.
1 Ant cr.	2 Arg. m.	4 Arnica.	2 Arsen.	1 Asaf.	3 Bary. c.
2 Bell.	2 Bryo.	2 Calc. c.	1 Camph.	1 Canth.	1 Caps.
2 Carb. v.	3 Caust.	2 Chel.	2 Chin. o.	1 Cina.	4 Colch.
2 Coni.	2 Croc.	1 Como.	1 Euphra.	2 Graph.	1 Guaj.
2 Hepar.	2 Igna.	3 K. carb.	2 Lach.	2 Led.	1 Lyco.
2 M. arct.	1 M. austr.	1 Mar. v.	3 Merc. v.	1 Mgs.	2 Mur. ac.
2 Na. c.	2 Na. m.	3 Nux v.	1 Paris.	2 Ph. ac.	4 Plat.
1 Plumb.	4 Puls.	3 Ran. b.	1 Ran. s.	2 Rhodo.	4 Rhus t.
3 Sabad.	1 Sabina.	2 Squilla.	3 Secale.	1 Selen.	4 Sepia.
2 Sil.	4 Spig.	2 Spong.	2 Staph.	4 Sul.	1 Sul. ac.
2 Thuj.	1 Verat.	2 Viol. tr.	2 Zinc.		

32. Itching, titillation, (compare crawling, insects and voluptuous,)—

1 Acon.	2 Agar.	1 Alum.	3 Ambra.	1 Am. c.	1 Am. m.
1 Ant. c.	1 Ant. t.	3 Arg. m.	2 Arnica.	1 Arsen.	1 Asar.
1 Ac. ac.	1 Bary. c.	2 Bell.	1 Brom.	2 Bry.	1 Calc. c.
1 Calc. p.	1 Camph.	1 Canth.	2 Caps.	1 Carb. v.	1 Caust.
2 Cham.	1 Chel.	2 Chin. o.	1 Cina.	1 Coccul.	3 Colch.
1 Coni.	1 Croc.	1 Dig.	1 Dros.	1 Euphor.	1 Euphras.
1 Evon.	1 Electr.	1 Fago.	1 Fer. Mag.	1 Graph.	1 Guaj.
1 Hep.	1 Igna.	1 K. carb.	2 Kalm.	2 Lach.	2 Led.
2 Lyc.	3 M. arct.	1 M. austr.	1 Mangan.	3 Mar. v.	1 Merc. j. ru.
3 Merc. v.	1 Mgs.	2 Mur. ac.	1 Mor.	2 Na. c.	1 Na. m.
3 Nux v.	1 Opi.	1 Paris.	2 Phos.	2 Ph. ac.	3 Plat.
1 Plumb.	2 Puls.	1 Ran. b.	1 Ran. s.	3 Rhodo.	3 Rhus t.
2 Ruta.	4 Sabad.	1 Sabina.	2 Squilla.	2 Secale.	1 Selen.
2 Sepia.	4 Sil.	3 Spig.	2 Spong.	2 Staph.	3 Sul.
1 Sul. ac.	1 Sap.	1 Tarax.	2 Thuj.	1 Verat. a.	1 Viol. t.
1 Zinc.	1 Zn. sul.				

— **Itching, vermin, as from,**=14.

33. " violent,—

2 Agar.	1 Alum.	1 Am. c.	1 Cina.	1 Creos.	2 Dros.
2 Dios.	1 Dulc.	1 Heracl.	1 Hyos.	2 Ip.	1 K. chlor.
3 Lach.	1 Lyco.	1 Mag. c.	1 Mag. m.	1 Merc. v.	1 Na. c.
1 Nit. ac.	2 Opi.	1 Paris.	1 Phos.	1 Rhus v.	1 Senega.
1 Sil.	1 Zinc.				

34. Itching, voluptuous, (compare pleasant and titillation,)—

2 Ambra.	2 Anac.	1 Arg. m.	1 M. arct.	1 Meny.	1 Merc. v.
2 Mur. ac.	1 Plat.	1 Puls.	2 Sabad.	1 Sepia.	3 Sil.
1 Spig.	1 Spong.	4 Sul.			

35. Itching, wandering,—

1 Acon.	1 Cham.	1 Graph.	1 K. carb.	1 Lyc.	1 Mag. m.
1 Mez.	1 Ratanh.	1 Rhus v.	1 Spong.	1 Staph.	1 Zinc.

Section II. Aggravations of Itching.

1. Afternoon, (compare evening 25 and P. M. 65.)— 1 Colo. 1 Comocl. 1 Nicc. 1 Plant. 1 Tilia.

2. Air, cold,— 1 Merc. sol. 1 Pæon. 1 Sep. 1 Spong.

3. " " when riding,— 1 Puls. nig.

— " " **to warm,**=warm room 86.

4. " walking in, (compare motion 47.)—1 Igna.

— **A. M.**=(compare day 20, forenoon 35, morning 44, and midnight, 41.)
5. " **4 o'clock,**—1 Sol. t. æ.
6. " **6** " 1 Arum it.
7. " **7** " (crawling itching.)—1 Fer. mag.
— " **12** " =noon 60.
— " **12** " **till 3,**=midnight 41.
8. **Arising, when,** (compare morning after arising 46, and motion 47.) 1 Sarsap.
— **Asleep, when half-, in bed in morning,**=bed, etc., 15.
— **Awaking,**=night 54.
9. **Bed,** (compare evening 25, feather bed 32, lying down 38, night 51, P. M. 70, overheated 62, and quiet 73.) 3 Bovist.

1 Camph.	1 Carb. an.	1 Carb. v.	1 Clem.	1 Coccul.	1 Coloc.
1 Cycla.	1 Cot.	1 Fago.	1 Ka. carb.	1 K. bich.	1 Kobalt.
1 Lyc.	3 Merc. v.	1 Mez.	1 Mur. ac.	1 Na. ph.	1 Nux v.
1 Psori.	3 Puls.	1 Pul. n.	1 Sars.	3 Sul.	1 Thuj.
1 Zinc.					

10. **Bed,** (I.-stitches.)—1 Cycla.
— " **on arising from,**=arising 8.
— " **contact of clothes, at night,**=18.
11. " **evening,**—

1 Anac.	1 Angus.	1 Ant. t.	1 Bary. c.	1 Carb. an.	1 Carb. v.
1 Colo.	3 Cycla.	1 K. chlor.	3 Merc. v.	1 Na. m.	1 Nux v.
1 Plat. m.	3 Puls.	1 Sars.	1 Sul.	1 Thuj.	1 Zinc.

12. **Bed, evening,** (I.-stitches.)— 1 Bella. 1 Mez. 1 Na. m.
— " **feather,**=32.
13. " **getting into,** (I.-crawling.)—1 Alco.
14. " **morning,**—1 Colo. 1 Rhus. 1 Spong. 4 Sul.
15. " " **half asleep,**—1 Petrol.
16. " **night,**—3 Alumen. 1 Coccul. 1 Cad. 1 Dulc. 1 Fago. 1 K. bich. 3 Merc. v. 1 Meni. 1 Ol. j. 1 Per. 1 Pic. ac. 1 Pul. n.
17. " " (I.-stitches.)—1 Euphra.
18. " " **contact of clothes,** (I.-crawling, compare touch 82.) 1 Cup. ars.
— **Blow,**=37.
— **Catamenia,**=40.
— **Change of air,**=air cold 2, temperature 81, warm room 86.
19. **Chill, during,**—1 Cad. 1 Graph.
— **Clothes of bed coming in contact,**=18.
— **Coition,**=Embrace 22.
— **Cold air,**=2.
— **Coldness,**=19.
— **Contact of bed clothes,**=18.
20. **Day,** (compare afternoon 1, A. M. 5, evening 25, forenoon 35, morning 44, noon 60, and P. M. 65.)— 1 Cinnab. 1 Hydras. 1 Morph. 1 Silicea.
— **Drinking tea,**=80.
21. **Eating, after,**— 1 Calc. p. 1 Dulc.
22. **Embrace, after,** (compare erection 24, motion 47, and overheated 62.)— 1 Agar.
23. " **during,** (itching, crawling.)—1 Mezer.
— **Entering warm room,**=86.

24. **Erection, during,** (itching, crawling; compare embrace 22.)—1 Tarent.

25. **Evening,** (compare bed 9, lying down 38, night 51, P. M. 65, and undressing 83.)—

1 All. c.	1 Anac.	1 Angus.	3 Apis.	1 Alumen.	1 Ammonia.
1 Bovist.	1 Bombyx p.	1 Carb. an.	1 Carb. v.	1 Coccul.	1 Coloc.
3 Creos.	1 Cycla.	1 Chrom. ac.	1 Chrom. ox.	1 Com.	1 Fago.
1 Fer. mu.	1 Fluor. ac.	1 Gam.	1 Kali ni.	1 Lyc.	3 Merc. sol.
3 Merc. v.	1 Mez.	1 Mor.	1 Na. mur.	1 Nux v.	1 Oleand.
1 Plumb.	1 Ped.	1 Plan.	1 Puls. n.	3 Puls.	1 Sars.
1 Selen.	1 Sil.	1 Sul.	1 Thuj.	1 Zinc.	

26. **Evening,** (itching, crawling),—
1 Alco. 1 Gent. c. 1 Mag. c. 4 Sul.

— " **in bed,** =11.

27. " **fire, sitting by,** (compare overheated 62, sitting 76, warm room 86, and quiet,)— 1 Fago.

28. " **lying down,** (compare lying down 38,)—
1 Am. m. 1 Asc. t. 1 Bry. 1 Mur. ac. 1 Na. c. 1 Nux v.
1 Sars.

29. **Evening, lying down,** (itching, crawling,)—
1 Cist. 1 Phos. ac. 1 Sul.

30. " **sleep, on going to,** (compare bed 9, lying down 38, night 51, P. M. 65, and quiet 73,)—1 Rhodo.

31. " **sweat, during,** (compare sweat 78, and night sweat 59,)—
1 Fluor. ac.

— " **undressing,**=83.

— " **walking,**=85.

32. **Feather bed,** (compare bed 9, evening 25, midnight 41, night 51, overheated 62, and P. M.)—1 Coccul.

33. **Fever, during,**— 1 Fluor. ac. 1 Hydras. 1 Mor. 1 Rhus v.

34. " " (itching, crawling,)—1 Arund.

— **Fire, sitting by,**=27.

— **Forenoon,** (compare A. M. 7, day 20, and morning 44.)

35. " (itching, crawling,)— 1 Sars. 1 Mag. c.

36. " (itching, stitches,)— 1 Carbn. s.

— **Heat,**=(bed 9, fever 33, overheated 62, and warm room 86.)

— **Hit,**=(knocking 37.)

— **Hour,**=(A. M., midnight, P. M., noon.)

37. **Knocking against anything,** (compare touch 82,)— 3 Spig.

38. **Lying down,** (compare bed 9, evening 25, night 51, P. M. 69, and quiet 73,)—
1 Arn. 1 Camph. 1 Sil.

39. **March, month of,**—(compare air, cold 2, periodical 64, and temperature 81,)— 1 Fluor. ac.

— **Meals,**=21.

40. **Menses, during,** (compare periodical 64,)— 1 K. carb. 1 Phos.

41. **Midnight,** (compare bed 9, and night 51,)—
1 Rhus v. 1 Sabad. 1 Thuj.

42. " **till 3 A. M.,** (compare A. M. 5,)— 1 Dulc.

43. " " " (itching, crawling,)— 1 Dulc.

— **Month of March,**=39.

— **Monthly,**=menses 40.

44. **Morning,** (compare A. M. 5, arising 8, bed 9, and forenoon 35,)—
1 Am. c. 1 Chin. s. 1 Mag. c. 1 Rhus t. 1 Sars. 1 Staph.
3 Sul.

45. **Morning,** (itching, crawling,)— 1 Alco. 1 Mag. c.

46. " **arising, after,** (compare arising 8, and motion 47,)—
1 Cimic. 1 Hep.

— " **bed,**=14.

47. **Motion,** (compare overheated 62, undressing 83, and walking 84,)—
4 Rhus t.

48. " (itching, crawling; compare night 9, on motion 47,)—
1 Acon. c. 1 Acon. f.

49. **Nausea, before,**— 1 Sang.

50. " **during,**— 1 Ip.

51. **Night,** (compare bed 9, evening 25, lying down 38, midnight 41, P. M. 70, and quiet 73,)— 3 Agar. 1 Am. c.
1 Am. m. 1 Arg. n. 1 Arn. 1 Ars. 1 Bary. c. 1 Berb. v.
1 Chin. o. 1 Cina. 1 Coccul. 1 Creos. 1 Croc. 1 Cinnab.
1 Ferula. 1 Igna. 1 K. chlor. 1 Lach. 1 Lachnan. 1 Mag. c.
1 Merc. j. fl. 3 Merc. sol. 3 Merc. v. 3 Mezer. 1 Mosch. 1 Mela.
1 Na. mur. 1 Nux v. 1 Ped. 1 Pic. ac. 1 Pul. nig. 1 Sabad.
1 Sarsap. 3 Silic. 1 Sap. 3 Sul. 1 Stry. 1 Thuja.
1 Til. 1 Trio. 1 Zn.

52. **Night,** (itching, crawling,)— 1 Bary. ac. 1 Gam. 1 Mag. m.

53. " (itching, stitches,)— 1 Ant. cr. 1 Prun. s.

54. " **awakening, when,** (itching, crawling,)—1 Carb. v. 1 Guare.

— " **bed, in,**=16.

— " **motion, on,** (compare motion.)

55. " " " (itching, crawling,)— 1 Carb. v.

56. " **sleep, after,**— 1 Berb. v. 1 Rumex.

— " " **before,** (compare evening, going to sleep.)

57. " " " — 4 Sul.

58. " " **during,**— 1 Ant. cr.

— " **sweat,** " (compare evening sweat, and sweat.)

59. " " " — 1 Na. mur.

60. **Noon,**— 1 Menisp.

61. " (itching, crawling,)— 1 Fer. met.

— **Open air,**=2.

— **Out doors,**=2.

62. **Overheated,** (compare motion and walking)— 1 Aethus.
Bovis. 1 Igna. 3 Lyc. 1 Mangan. 4 Puls. 3 Sep.

63. **Pain, after having,**— 1 Stront.

— **Penis, erection of,**=24.

64. **Periodical,** (compare March and menses,)—
1 Hyos. 1 Pte. 1 Rhus v.

— **Perspiration,**=77.

— **P. M.**=(afternoon 1, evening 25, or night 51.)

65. " **4 o'clock,**— 1 Gels.

66. " **5 to 7** " — 1 Sars.

67. " **6** " — 1 Dios. 1 Fago.

68. " **7** " (itching, stitches,)— 1 Petrol.

69. **P. M., 8 o'clock**, (itching, crawling,)— 1 Tarent.
70. " **10** " — 1 Plan.
71. " **10 to 11** " — 1 Fluor. ac.
72. " **11** " — 1 Ka. carb.
— " **12** " =midnight 41.
— **Quiet, when,** (compare bed, lying down, and sitting.)
73. " " (itching, crawling,) 1 Aconin.
— **Reclining, when,**=38.
— **Riding in open air,**=3.
74. **Rubbing,** (compare scratching and touch,)— 4 Puls.
75. **Scratching,** (compare rubbing and touch,)—

1 Am. m.	4 Anac.	1 Arg. m.	1 Arn.	2 Ars.	1 Bary. c.
3 Bism.	1 Bov.	3 Calad.	2 Calc. c.	1 Can. s.	2 Canth.
3 Caps.	1 Carb. an.	3 Caust.	1 Cham.	1 Chel.	1 Chin.
1 Coccul.	3 Coni.	1 Creos.	1 Cro. tig.	1 Cup. met.	1 Caj.
1 Dros.	1 Dulc.	1 Dolich.	1 Fago.	2 Guaj.	1 Kali. c.
1 Lach.	4 Led.	1 Lachn.	1 Lac. ac.	1 Mag. c.	1 Mag. m.
1 Mangan.	1 Merc. j. f.	2 Merc. v.	3 Mezer.	2 Mgs.	1 Mur. ac.
1 Na. c.	1 Paris.	2 Phos.	1 Ph. ac.	4 Puls.	1 Sars.
1 Squill.	2 Seneg.	2 Sep.	3 Silic.	2 Spig.	2 Spon.
1 Stan.	2 Staph.	1 Stram.	3 Stron.	3 Sul.	1 Tril.

— **Sexual Excitement,**=embrace 22, or erection 24.
76. **Sitting,** (compare evening by fire, lying and quiet,) — 1 Cycla. 1 Ped.
— **Sleep,**=(bed, evening, lying down, midnight, night, P. M. and quiet.)
— **Suffering,**=pain 63.
77. **Sweat, before,** (compare evening sweat and night sweat.)—1 Colo.
78. " **during,**—1 Fluor. ac. 1 Coccul. 1 Opi. 1 Rhodo. 1 Tellur.
79. " " (itching, crawling.)— 1 Rhodo.
80. **Tea,**—1 Na. mur.
— **Temperature, change of,** (compare air, March and warm room.)
81. " " (itching, crawling.)—1 Acon. f. 1 Acon. c.
— **Time,** (afternoon 1, A. M. 5, day 20, evening 25, forenoon 35, midnight 41, morning 44, night 51, and P. M. 65.)
82. **Touch,** (compare bed, contact, etc., embrace, knocking, etc., rubbing and scratching.)— 1 Cad. 1 Euphorb. 4 Rhus t.
83. **Undressing, evening,** (compare air, cold.)— 1 Arsen. 1 Coccul.
1 Dros. 1 Gam. 1 Ham. 1 Hyper. 1 Mez. 1 Nux v.
1 Oleand. 1 Rhodo. 1 Silic. 1 Stan.
— **Waking,**=night 54 and 56.
84. **Walking,** (compare air, walking in, motion and overheated.)—
1 Cinnab. 1 Igna. 1 Ped.
— " **in air,**=air, walking in, 4.)
85. " **in evening,** — 1 Lach.
— **Warm exertion,**=overheated 62.
— " **room, on entering from cold air,** (compare temperature.)
86. " " " " " (itching titill.)—1 Ac. ac.

Section III. Ameliorations of Itching.

— **Applications, warm,**=10.
— **Arising in morning,**=5.

— **Bed, warm,**=11.
1. **Cold water,**—1 Fago.
— **Contact,**=9.
— **Evening, on scratching,**=8.
2. **Exercise,** (compare heat.)—1 Apis. 1 Bufo.
— **Friction,**=6.
3. **Heat,** (itching, crawling; compare hot water, warm applications and warm bed.)—3 Acon.
— **Hot room,**=3.
4. " **water,** (compare warm applications, heat and warm bed.)—1 Rhus v.
5. **Morning, on arising,**—1 Ruta.
— **Motion,**=2.
6. **Rubbing,** (compare scratching and touch.)—
1 Ant. c. 1 Brom. 1 Mur. ac. 1 Puls. n.
7. **Scratching,** (compare rubbing and touch.)

1 Agar.	2 Agnus.	2 Alum.	1 Ambra.	2 Am. c.
1 Am. m.	2 Anac.	1 Angus.	1 Ant. c.	1 Ant. t.
3 Arsen.	4 Asaf.	2 Asar.	1 Bary. c.	1 Bell.
1 Berb. v.	1 Borax.	1 Bovist.	3 Bryo.	4 Calc. c.
1 Camph.	1 Cann. sat.	3 Canth.	2 Caps.	1 Carb. an.
2 Caust.	2 Chel.	1 Chin. o.	2 Cicut.	1 Cina.
1 Clem.	1 Colo.	1 Coni.	1 Creos.	1 Croc.
4 Cycla.	1 Dig.	3 Dros.	2 Dulc.	1 Fer. Mag.
3 Guaj.	1 Grat.	1 Hep.	3 Igna.	1 Ka. c.
2 Ka. n.	2 Laur.	2 Led.	2 Mag. c.	1 Mag. m.
1 M. arct.	1 M. austr.	4 Mangan.	2 Meny.	1 Merc. s.
2 Merc. v.	1 Mezer.	2 Mosch.	4 Mur. ac.	2 Na. c.
3 Na. m.	1 Nit. ac.	1 Nux v.	2 Ol. an.	2 Oleand.
4 Phos.	1 Ph. ac.	1 Plat.	3 Plumb.	1 Phell.
1 Prun.	1 Ran. b.	2 Rhus t.	3 Ruta.	1 Sabad.
2 Sabina.	1 Samb.	1 Sarsap.	2 Squill.	1 Secale.
2 Selen.	1 Seneg.	1 Sepia.	2 Spig.	1 Spon.
1 Stan.	1 Staph.	1 Stron.	4 Sul.	1 Sul. ac.
1 Tabac.	2 Tarax.	3 Thuj.	1 Valer.	1 Viol. t.
3 Zinc.				

8. **Scratching, in evening,**— 1 Mur. ac.
9. **Touch,**— 1 Benz. ac. 3 Thuja. 1 Zinc.
— **Warm,**=3.
10. **Warm Applications,** (compare heat and warm bed.)— 1 Rhus v.
11. " **Bed,** (compare heat and warm applications.)—
1 Bovist. 1 Carb. v. 1 Clem. 1 Coccul. 1 Kobalt. 3 Merc. v.
1 Psorn. 1 Puls. 1 Spong. 1 Sul.
— **Warm water,**=4.
— **Water, cold,**=1.
— " **warm,**=4.

Section IV. Itching: Scratching Causes.

— **Aggravation,**=Section II.
— **Amelioration,**=Section III.
1. **Biting,** (compare corrosive and stinging.)—1 Am. m. 1 Caust. 1 Euphorb. 3 Lach. 1 Led. 1 Lyc. 1 Mez. 3 Oleand. 1 Puls. 1 Spong. 1 Sul.

2. **Burning,** (compare corrosive, heat and smarting.)

1 Agar.	1 Ambr.	3 Am. c.	2 Am. m.	2 Anac.	1 Arn.
3 Arsen.	3 Bell.	1 Bov.	3 Bry.	1 Calad.	2 Calc. c.
1 Can. s.	1 Canth.	2 Caps.	1 Carb. an.	1 Carb. v.	4 Caust.
1 Chel.	1 Cicut.	2 Coccul.	1 Coni.	3 Creos.	1 Crot. tig.
2 Cycla.	1 Dros.	3 Dulc.	2 Euphorb.	1 Evon.	1 Graph.
1 Guac.	1 Grat.	3 Hep.	2 K. carb.	1 Kal.	4 Lach.
1 Laur.	1 Led.	3 Lyc.	1 Mag. c.	1 Mag. m.	1 M. arct.
1 Mangan.	3 Merc. v.	2 Mezer.	1 Mgs.	2 Mosch.	1 Mag. sul.
1 Na. sul.	2 Nux v.	3 Oleand.	1 Paris.	3 Phos.	1 Ph. ac.
1 Plumb.	2 Puls.	2 Ran. b.	1 Rhod.	4 Rhus t.	2 Sabad.
1 Sabin.	1 Samb.	1 Sars.	3 Squill.	1 Selen.	1 Seneg.
3 Sepia.	4 Sil.	3 Spig.	1 Spong.	2 Staph.	2 Stron.
4 Sul.	2 Thuja.	1 Tilia.	1 Verat.	1 Viola t.	1 Zinc.

3. **Change of place,—**

2 Anac.	1 Calc. c.	1 Carb. v.	1 Chel.	1 Coni.	2 Cycla.
3 Igna.	1 Mag. c.	1 Mag. m.	2 M. arct.	3 Mezer.	1 Mgs.
1 Nit. ac.	1 Sang.	3 Spong.	3 Staph.	3 Sul. ac.	2 Zinc.

— **Continuance,**=6.

4. **Corrosive sensation,** (compare biting and smarting,)—

1 Agar.	1 Alum.	1 Ant. c.	2 Bary. c.	1 Canth.	1 Caps.
2 Cycla.	1 Dros.	1 K. carb.	1 Led.	3 Lyc.	4 Oleand.
1 Paris.	1 Phos.	1 Ph. ac.	1 Puls.	2 Rhus t.	1 Ruta.
2 Spong.	3 Staph.	2 Tarax.	1 Verat. al.		

— **Deadness,**=7.

— **Drawing,**=(tearing 13, or tension 14.)

— **Eating sensation,**=4.

— **Gnawing sensation,**=4.

5. **Heat,** (compare burning, corrosive and smarting,)—

1 Spong.	1 Sul.

6. **No relief,—**

2 Acon.	1 Agar.	1 Agnus.	1 Alum.	2 Ambr.	1 Am. c.
1 Am. m.	3 Angus.	1 Ant. c.	1 Ant. t.	3 Arg. m.	2 Arn.
1 Asaf.	1 Asar.	2 Aurum.	1 Bary. c.	1 Bell.	2 Bism.
1 Borax.	3 Bovist.	2 Calad.	1 Camph.	1 Carb. an.	1 Carb. v.
1 Caust.	2 Cham.	2 Chel.	1 Cina.	2 Clem.	1 Cocc.
1 Coff.	2 Colch.	1 Cols.	2 Croc.	2 Cup. m.	1 Dig.
1 Dros.	2 Euphorb.	1 Euphras.	1 Grat.	2 Hell.	1 Hyos.
2 Iod.	3 Ip.	1 Kal.	1 Laur.	3 Mag. m.	2 M. arct.
1 M. aust.	2 Mar. v.	2 Merc v.	1 Mezer.	3 Mgs.	1 Mur. ac.
1 Na. carb.	1 Nit. ac.	1 Nux v.	1 Nicc.	1 Opi.	1 Plat.
4 Puls.	3 Ran. s.	2 Rheum.	1 Rhus t.	1 Ruta.	1 Rhab.
1 Samb.	1 Secale.	1 Seneg.	2 Sil.	3 Spig.	4 Spon.
1 Stan.	2 Stram.	1 Stron.	2 Sul.	1 Sul. ac.	2 Tarax.
1 Valer.					

7. **Numbness,—**

2 Ambra.	3 Anac.	1 Ang.	1 Coni.	2 Cycla.	3 Lach.
3 Lyc.	4 Oleand.	1 Phos.	2 Ph. ac.	2 Plum.	1 Sep.
3 Sul.					

8. **Pain,—**

1 Agar.	2 Alum.	1 Arsen.	4 Bary. c.	1 Bell.	1 Calc. c.
2 Caps.	2 Chin. o.	1 Coccul.	1 Coni.	2 Creos.	2 Euphra.
1 Led.	1 Mgs.	1 Na. m.	1 Nux v.	2 Paris.	3 Petrol.
2 Ph. ac.	1 Plumb.	2 Puls.	2 Rhus t.	1 Squill.	1 Sel.
1 Sep.	2 Sil.	2 Staph.	3 Sul.	1 Thuja.	1 Verat.

— **Pain, as if ulcerated,**=16.

— **Pricking,**=11.

— **Raw sensation,**=10.

— **Shifting about of itching,**=3.

9. **Smarting,** (compare burning, corrosive, heat and soreness,)—

1 Bry.	1 Carb. an.	1 Hell.	3 Sul.	1 Zinc.

10. **Soreness as if raw,** (compare smarting,)—

1 Agar.	1 Ambr.	1 Ant. c.	1 Bary. c.	1 Bryo.	1 Calc. c.
1 Can. s.	1 Caps.	1 Cicut.	1 Dros.	1 Hep.	1 Lyc.
1 Mag. c.	1 M. aust.	1 Merc. v.	1 Mez.	1 Mgs.	1 Na. m.
1 Nit. ac.	1 Nux v.	3 Oleand.	1 Paris.	1 Petrol.	1 Phos.
1 Phos. ac.	1 Puls.	1 Rhus t.	1 Sabin.	1 Squill.	1 Selen.
3 Sepia.	1 Sil.	1 Staph.	3 Sul.	1 Zinc.	

11. **Sticking,** (compare biting,)—

1 Alum.	1 Am. m.	2 Arn.	1 Arsen.	2 Asaf.	4 Bary. c.
1 Bell.	3 Bry.	2 Calc. c.	1 Can. s.	2 Canth.	3 Caust.
1 Chel.	2 Chin. o.	2 Coccul.	1 Coni.	3 Cycla.	1 Dros.
2 Dulc.	3 Graph.	1 Hel.	1 K. carb.	2 Lach.	1 Lyc.
1 M. arct.	1 Mar. v.	3 Merc. v.	1 Mezer.	2 Nit. ac.	1 Paris.
2 Pho. ac.	3 Puls.	1 Ran. b.	4 Rhus t.	3 Sabad.	1 Sars.
3 Squill.	1 Selen.	2 Sepia.	2 Silicea.	3 Spong.	2 Staph.
1 Stron.	3 Sul.	2 Tarax.	2 Thuj.	3 Viol. t.	1 Zinc.

12. **Stinging,** (compare biting and sticking,)—

2 Am. c.	3 Am. m.	2 Bry.	2 Calc. c.	1 Canth.	1 Carb. an.
2 Carb. v.	3 Caust.	1 Chin. o.	1 Coni.	2 Creos.	1 Dros.
3 Euphorb.	Hell.	2 Ipec.	4 Lach.	3 Led.	3 Lyc.
1 M. arct.	1 Mang.	2 Merc. v.	3 Mez.	1 Na c.	1 Na. m.
2 Nux v.	4 Oleand.	2 Petrol.	1 Phos. ac.	3 Puls.	1 Ran. b.
1 Ruta.	1 Selen.	1 Sep.	1 Sil.	3 Spon.	3 Sul.
1 Zinc.					

13. **Tearing,**—

2 Arsen.	1 Bell.	1 Bry.	2 Calc. c.	2 Cycla.	3 Lyco.
2 Mgs.	1 Puls.	1 Rhus t.	2 Sepia.	2 Sil.	1 Staph.
4 Sul.					

14. **Tension,**—

1 Ang.	2 Caust.	3 Lach.	1 M. arct.	2 Ph. ac.	1 Ruta.
1 Spig.	3 Stron.				

— **Tickling,**=15.

— **Tightness,**=14.

15. **Titillation,** (compare voluptuous,)—

1 Agar.	2 Ambr.	1 Caps.	2 Chin. o.	1 Coccul.	2 Mar. v.
3 Merc. v.	4 Sabad.	3 Sil.	2 Spig.		

16. **Ulcerative pain,**—

2 Am. c.	4 Am. m.	1 Bell.	2 Bry.	2 Caust.	2 Chin. o.
1 Cicut.	3 Graph.	2 Hep.	2 K. carb.	1 Mag. m.	1 Mang.
2 Merc. v.	1 Na. m.	2 Phos.	3 Puls.	4 Rhus t.	2 Sep.
1 Sil.	1 Spig.	2 Staph.	1 Sul. ac.	2 Thuj.	1 Verat.

17. **Ulcerative pain beneath the skin,**—

1 Arn.	2 Asaf.	1 Bary. c.	2 Bry.	2 Calc. c.	2 Carb. v.
2 Coni.	1 Cycla.	3 Graph.	2 Hep.	1 K. carb.	1 Led.
1 Na. m.	2 Petrol.	3 Phos.	3 Puls.	2 Ran. b.	3 Rhus t.
4 Sil.	1 Staph.	3 Sul.	1 Zinc.		

18. **Voluptuous sensation,** (compare titillation,)— 1 Silic.

— **Wandering of itching,**=3.

LACHESIS IN CEREBRO SPINAL MENINGITIS.

BY HUGH PITCAIRN, M.D., HARRISBURG.

Miss Grace W., aet. 19 years, school teacher, in June, 1880, came home from Columbia, Pa., where she had been teaching, with nervous system greatly exhausted. Pain in head, dizziness, loss of appetite, drowsiness, stupid, and general debility. Upon consulting one of Harrisburg's best homœopathic physicians, he diagnosed "brain fever," which he thought might be averted by rest and medicine. (This young lady but a short time ago passed a remarkable examination for proficiency in high school of this city, and immediately, without rest, took charge of a large school.)

From the above date to July 3d, Miss Grace was, save at short intervals, in a semi-comatose state, rest and medicine not bringing about her normal condition. The father of the young lady being allopathic, insisted upon sending for an old school physician, who diagnosed the case as one of bilious intermittent fever. Quinia in pills, and purgative medicine, jalap, were ordered. Pulse 91, severe headache, especially at base of brain; exceedingly nervous, usually from 11 P. M. until 3 A. M. The five succeeding days the pulse ranged from 90 to 100. The medicine was continued, but the patient exhibited great irritability, coming in paroxysms. She screamed one day from 9 P. M. until 2 A. M. The physician advised rubbing her spinal column with Cayenne pepper boiled in vinegar. There was excessive prostration after this, with symptoms of nervous brain trouble. The evening of this day she had a sinking spell, lasting thirty minutes, with several shorter spells during the night. The physician in charge considered these indicative of the breaking of typhoid fever, and ordered tonics in form of bromide of potassium and brandy, to assist nature; the quinia being continued. After these sinking spells, brain symptoms became more decided, followed by dilatation of pupils of the eyes; still she was considered convalescing from typhoid fever.

Near midnight of July 12th she had nervous twitchings, paroxysms of pain more violent, muscles contracted, head inclined backward.

On the morning of July 13th her disease was pronounced cerebro spinal meningitis. Applications of mustard were ordered to her abdomen, forearms, lower limbs and base of brain, with Cayenne pepper and vinegar to the spine, also preparations of ammonia and chloral to the spine and jaw. Internally, bromide of potassium, quinia, purgatives and brandy; temperature 100¾, pulse 117; muscles rigid, especially those of the face and neck. The eyes were closely covered with iced cloths, the tongue was swollen and stiff, presenting a flaky appearance, also throat, as far as could be seen; voice, sight and hearing almost lost.

Wednesday, July 14th, paroxysms were more frequent and violent; temperature 102, pulse 121; medicines as above were continued, but in increased doses at shorter intervals. A rash now appeared, consisting of pink spots along the spinal column, which, when touched, became purple.

July 15th, temperature 103, pulse 123; rigidity of muscles increasing; head drawn back more. It was almost impossible to get anything between her teeth; spots covering sternum, about the diaphragm and spinal column, to the medulla. When the physician came at 5 P. M., he gave the patient's spine and jaws a vigorous rubbing, pronounced her dying of starvation, and ordered an enema of asafœtida and beef tea. Pulse 125. This injection was followed by hæmorrhage from the bowels. An effort was made to get the patient under the influence of morphia, in order to give more asafœtida and beef tea at 3 P. M.; but during the interval the homœopathic physician was recalled. The hæmorrhage was constant from Friday, July 16th, at 10.30 A. M., until the following Monday, at 7.30 P. M.

After the change of treatment, the paroxysms, though violent, were less frequent; counter irritation seemed to increase the suffering. A marked feature was the change in the pulse, about this time, when it fell to 72, as a rule. There were a few times when it was more, also less. For a number of weeks succeeding, nervous twitching came about 5 P. M., daily, continuing until 11 P. M., preceded by a pricking sensation across her nose, and extending over the body, followed by sleeplessness. Suffocating spells daily, from 2 A. M. to 7 A. M., during which times the feet and limbs became cold and clammy. Any warm application to the feet

would immediately bring about extreme difficulty in breathing. At different times nausea was a prominent symptom, alarming in character.

August 7th. She vomited yellow-green fluid and blood; and again, on Sept. 29th, nausea recurred, vomiting a green substance, spitting a fluid almost colorless, which continued three days and nights; pain at base of brain increased by movements in efforts to vomit; greatly increased opisthotonos; urine dark brown in color; menses regular during the whole of her sickness. She took no nourishment during this time, except white of egg, sweetened, and made as for icing of cakes.

Aug. 11. A fancy developed for tomato catsup, which continued until Sept. 29th. The longer it was given, the seasoning (especially pepper) had to be increased. Shortly after the commencement of the attack, the white bandages over her eyes admitting more light than she could bear, dark blue, almost black bandages, were substituted, about July 20th, and were continued, with room as dark as it could be made, until October.

Insomnia existed continually for months. When she did fall into a doze she had exciting dreams, as if crossing water, precipices, caught in machinery and whirled around. She had a constant whirling sensation in her head, relieved by steady, continuous pressure, but aggravated by light pressure. In the early stages of the sickness, she was relieved by pressure of the thumb and middle finger upon the pupils of the eyes.

The above history was given to me by the patient's sister, a refined, educated lady, who was her nurse throughout her entire sickness, and had made memoranda from time to time. Not until the allopathic physician pronounced the patient in a dying condition, and had consulted with several physicians of his own school, did the father consent to the return of the homœopathic physician, who had originally diagnosed the case as one of "brain lesion," and was correct. When he was called he controlled the hæmorrhage from the bowels with hamamelis virg., doubtless saving the lady's life.

It was because of some unaccountable antipathy of the father to my brother physician that I, greatly against my wish, after repeated refusals, took charge of the case October 7th. The

doctor told me he had used actea r. arsen., bell., bry., cuprum, hell., lycop., mercury, nux, opium, zinc, gelsem., and other remedies.

Oct. 7th. Her symptoms were, aside from her general condition described above, intense drawing in the occiput, as though her skull would crush through her neck; continued dizziness and whirling in the brain; extreme nausea. Aggravation of all the symptoms at night and after every sleep. The head slightly drawn to the left side. Amelioration from lying perfectly quiet. Extreme sensitiveness of the eyes to light, even through the heavy bandage, so that a candle could not be brought into the room at night. Epistaxis, dark fluid blood. Loss of speech. Lower jaw inclined to drop. Tongue moist, mapped, covered with mucous patches, swollen, with imprint of teeth. Desire for sweets, but none for food. Thirst moderate. Urine dark, turbid, foamy. Stools small, offensive. Limbs without any power to move them. She could move the upper extremities slightly. Insomnia; cold, clammy sweat on extremities; internal sensation of heat; menses regular. Great sadness and anxiety, more marked in the morning. My mind was directed to mercury and lachesis, but as the former had been given I prescribed one powder of sulph.[30] followed by lachesis[30]. I made this selection because I had been preceded by a first-class homœopathic practitioner, and I felt it was necessary for me to secure a drug out of the usual line of those used in this class of patients, and then the drug appeared from its pathogenesis to be well indicated. I was not disappointed. Improvement followed the first dose and continued without interruption. From October 22d, as she was able to take more of the white of egg with other liquid nourishment, I gave a small powder of pepsin after each time nourishment was taken, gradually adding to the bill of fare beef essence, beef tea, oysters, mutton broth, fruit, etc.

I also had the nurse use massage with the hands upon the muscles, and the arms and limbs, encouraging her to move them, with help, slightly and frequently. The muscles, shrunken to mere strings, began to fill up and strengthen. I then had her placed on her hands and knees and crawl about the bed until able to stand upright.

Under the remedy the extreme sensitiveness of the eyes gradu-

ally grew less; we then changed the dark bandage to a light blue one of the same thickness, then yellow, then white, then reduced the number of thicknesses week by week, thus admitting more light, there having been nine thicknesses of bandage over the eyes since July, until all were removed, first in the evening twilight and finally through whole days as she became able to bear it. When all were removed we found the lids paralyzed, the pupils extremely dilated, and sight lost. We used massage with salt water on the eyelids, and after a few weeks' treatment she gained some control over the palpebral muscles. I encouraged her to hold them open in the early morning light and thus she began to distinguish objects in the room in outline, sight gradually returning, and convalescence from this time became more rapid.

Until November 1st I prescribed lachesis[30] every four hours, with a couple of doses of lycop.[30] intercurrent, for flatulence; after this date, lach.[14c and 4m] respectively. For subsequent headaches after convalescence was established I prescribed gels.[30] and sulph.[30]

Her recovery was gradual, though more marked after I commenced with lachesis[14c] and still more after lachesis[40c], and her sight had somewhat returned. In January she commenced coming to my office for medicine. She has had no medicine since March 1st to date. She is now in perfect health in every way, is not troubled with headaches but is teaching school in Harrisburg without mental fatigue, is rosy cheeked and in the bloom of health.

Dr. Morgan: I can verify another symptom of Allen's in connection with this case: Horrible dreams of going through water. Verat. viride has that symptom. I had a patient whose mind was disordered, who was greatly annoyed by these dreams of water. Verat. viride was given him and cured him.

Dr. W. J. Martin: In a case like the one mentioned, or any other case, would you prescribe verat. vir. no matter what the other symptoms were?

Dr. Morgan: With the totality of symptoms that would be a key-note.

VINEGAR TREATMENT IN VARIOLA.

BY E. D. DOOLITTLE, M D., EASTON.

March 19th, 1873, I was engaged by a railroad contractor to take charge of some cases of variola that had made their appearance in a boarding shanty. A boy, 16 years old had died. He was attended by one of the prominent allopathic physicians of Easton. I went to the shanty, consisting of two rooms on the first floor, and one on the second, and found three men sick, and also a girl, aged 13 years, and a baby one year old; both of the latter and one of the men being very sick, the girl being the worst case of confluent variola that I had ever seen.

A prominent member of this society saw the cases the first day, and said to me: "One of the men, the girl and the baby are very sick and will probably die;" a prognosis I fully concurred in. A short time previous I had read of a large number of cases that had been treated with vinegar. It was also used as a prophylactic. It was thought these cases, consisting of adults, a child and an infant, would be good test cases, so it was decided to give the vinegar a trial, and accordingly, a tablespoonful was given twice a day to the adults, a teaspoonful to the children, a teaspoonful was also given once a day to all in the house who had not had the disease; the remainder of the family, consisting of the mother, two boys, aged seven and nine years, a work girl and two male nurses. No other treatment was given, except that the girl had a dose of merc. sol.[3] on the 25th and 27th, for diarrhœa.

April 2d, I discharged the last patient, the girl. All lived, and no new cases occurred.

Dr. Korndœrfer: I really have nothing to say in relation to this paper. I merely want to repeat now what I have already said in relation to the cyanide of potassium.

The cyanide is a disinfectant; it acts as a disinfectant as well as a destroyer of the germs of the disease. During our last epidemic of 1871 and 1872, I was led, after a number of observations, to use in every case, ten grains of the cyanide to the ounce of water, sprinkling one or two ounces through the house. The result was that in every instance the cases improved promptly.

With the coming possible epidemic to our cities, or at least the spread of the disease during the coming winter, it is well not to forget to use the cyanide.

During the summer, I was called to several cases, and only in one instance did I use anything else. In that case I used ozone, and it was the only house in which I had the second patient. In the other instances I used the cyanide and had no spread of the disease. Where ozone was used the case was one of varioloid, and yet in nine days after, the second patient was taken with varioloid. At the same time I had a case in a family of six children—a case of confluent small-pox, which was removed to the hospital and died. In that family I used nothing but the potassium cyanide, ten grains to the ounce of distilled water, sprinkling a few drops through the house. Great care must be taken in sprinkling. Do not use the atomizer. I had some experience in this matter in my own house. The nurse was discovered to have varioloid. I undertook to atomize a solution of the cyanide, twenty grains to the ounce, in the girl's room and in the closets, and came near ending my own existence. It produced a very marked effect upon the heart's action.

Dr. W. J. Martin: Did you give internal treatment at the same time?

Dr. Korndœrfer: While using the cyanide I rarely needed much treatment. Bryonia in the early stages, and then a few doses of sulphur.

Dr. Detwiller: The cases referred to in the paper were my cases, located about two miles from my office. I found it inconvenient to treat them, but turned them over to the doctor and told him to report to me. I know the cases recovered. The treatment was then in vogue, and I thought it might be tried. Cimicifuga strikes me as a good remedy in the prophylactic treatment of small-pox. I had one striking case, that of a large, healthy gentleman, who lived opposite one of those small-pox cases. He said, that for three days he had a severe headache, backache, and aching in the limbs. I said, "You are taking the small-pox." I vaccinated him and gave him cimicifuga, which relieved him entirely. I think it should be tried. I would advise that it be given low in the beginning, and afterwards give

the higher dilutions. I give the sixth. It shows a similarity to the early symptoms of variola.

Dr. Van Artsdalen: There is a German remedy called xylol, that is of great value in the disinfection of houses where scarlet fever prevails, and I have no doubt but that it would be good in small-pox. I have tried it in only one case, but it was not successful there for another one of the family took the disease.

Dr. Detwiller: I would ask Dr. Korndœrfer if the cyanide smells strong?

Dr. Korndœrfer: Not very strong. I make a solution of ten grains to two ounces. I sprinkle it in the corners of the room, and renew it once a day. It does not stain the carpets. I also apply a few drops on the sores.

Dr. Jones: Cyanide of potassium is an exceedingly poisonous substance. The simple smelling of the bottle causes in me severe vertigo for several hours. Do you know of any other persons similarly affected?

Dr. Korndœrfer: I have atomized sixty grains with the blinds down, and saw no unfavorable symptoms from its use. I have used it in a number of houses and the disease never spreads. I followed an old school physician who had been treating in a family where small-pox prevailed. I used the cyanide and the disease spread no further. I use the cyanide and thus avoid vaccination, telling the families I am using something that makes it unnecessary. In my own family, the child had never been vaccinated, and was nursed by a girl in whom the eruption had appeared.

Dr. Walker: One ounce of black oxide of manganese with sulphuric acid, carried through the house is said to be a very good disinfectant.

Dr. Wood: I don't know anything about disinfectants, but if you use digitalis and sulphate of zinc you will cure your cases.

POST SCARLATINAL DROPSY.

BY Z. T. MILLER, M.D., PITTSBURGH.

Young G., æt. five years, was taken with scarlet fever. The eruption was plentiful and of the variegated order, and the throat was somewhat sore, but the whole attack was very mild. I only made two visits. On June 19th, about a week after my last visit, I was again called and found him suffering with œdema of the hands and feet, urine scanty and dark colored, no thirst, and prescribed apis[12]. This remedy was continued for four days, when I again saw him and found that in addition to the symptoms complained of when first seen, he had a dry, teasing, tickling cough, the face was swollen and there was severe dyspnœa. Gave tereb.[6] and ipecac[3]. On the next day, the 25th, he was decidedly worse. The dyspnœa was intensified, he being unable to lie down, the cough continued, the heart's action was very irregular, the sounds muffled and indistinct, the limbs, face, scrotum and prepuce more swollen, the urine still scanty and dark, and there was still no thirst. The family were anxious and desired a consultation. Apocynum can.θ eight drops in a half glass of water, of which a teaspoonful was to be given every hour, was prescribed, and arrangements made to have Dr. Martin see the case with me at 5 P. M.

When the consulting physician arrived at the hour specified, the improvement had been so great that the remedy was continued. The swelling of the scrotum was less, the heart sounds were very much more distinct, the dyspnœa was less and the general condition was greatly improved.

The boy made a rapid and good recovery, continuing to take the apocynum in water for several days. There was some running of the ears after the child recovered. I consider this a remarkable action following the administration of a drug in low potency in a case where speedy results were necessary to save life.

DR. MORGAN: I had a similar case in which the high potency had as good an effect as the low. The case was rheumatic effusion. The patient could not lie down. Dr. Guernsey, in consultation, gave apis[200] every twenty minutes. In the course of an

hour the patient was relieved and soon got well. Six years afterward I examined the heart and found it sound. Another case this summer was relieved by china[200], for pains in the thighs bry.[200] Next day there was dropsy of face and thighs. Urine showed acute Bright's disease with blood in urine. Nux v.[200] every hour relieved much in following morning, then gave china[200] twenty-four hours, but case grew worse, then gave bry.[200] with improvement.

FRAGARIA VESCA IN AGALACTIA.

BY Z. T. MILLER, M.D., PITTSBURGH.

Mrs. B., fair complexion, phlegmatic temperament, was confined three years ago. Her milk was abundant for several days after her confinement, after which the flow was entirely suppressed, in spite of the use of urtica urens, asafœtida, etc. On August 20th, 1881, she was again confined. As on the previous occasion the milk was quite abundant for several days but the nipples became very sore and cracked, which was relieved by sepia[30]. About the sixth day the flow of milk began to diminish and fragaria vesca, third trituration, one grain every four hours, was given for twenty-four hours, and then the third dilution in water, a teaspoonful every three hours, and to this day that woman's breasts are as dry as they were the last time.

Dr. Korndœrfer reported several cases where the drug had failed him.

Dr. Morgan reported an admirable cure.

Dr. Van Artsdalen: I had a similar case where the secretion was gradually failing, but when I gave fragaria the flow ceased immediately.

Dr. Morgan: I think the gentlemen obtained provings of the drugs in the cases mentioned and would suggest that the high potencies be tried.

THE USE OF ALCOHOL IN THE TREATMENT OF ZYMOTIC DISEASES.

BY J. H. MARSDEN, A.M., M.D., YORK SPRINGS.

The announcement of the title of this paper under existing circumstances perhaps suggests the necessity for some apology. Far be it from me to throw any obstacle in the way of the spasmodic efforts of the good people of this country to dislodge the loathsome parasite which has burrowed into the very vitals of our social system, holds on with obstinate tenacity, and seriously threatens its ultimate dissolution. If, by the employment of alcohol or ardent spirits in any form, I should save the life of every patient in typhus, typhoid and cerebro-spinal fevers thus treated, but at the same time induce habits of intemperance, entailing a life of suffering and of crime, terminating in an inglorious death and dishonored grave, I should consider the fruits of my labors a curse and not a blessing to my fellow men. But in proposing alcohol as a remedial agent I intend to speak of using it as not abusing it. Were I to recommend arsenic in considerable quantity and to be long continued in the treatment of disease, although I might supplant the malady for which it was given, I would substitute for it, in all probability, a cachexia worse in its consequences than the original disease. The same may be said of mercury and many other remedies when pushed to extremes, which in their proper quantities and administered according to their true indications, are powerful remedial agents, and yet perfectly harmless in their results. In the same manner all the medicinal powers of alcohol may be evoked if its indications be properly regarded, with quantities so small and of so short administration as to run no risk of creating a morbid fondness for it—much less habits of intemperance.

Alcohol has long been used in the treatment of continued fevers which are mostly of zymotic origin. Its application has, however, usually been different from that I am about to propose. In the early stage of these diseases, while there was great heat of surface, and especially in young robust subjects, fullness of pulse, venesection was practiced and repeated till the action of the heart was subdued and the pulse and skin brought into a somewhat

satisfactory condition. A full dose of calomel was then given, and this was followed by epsom salt or castor oil, if without this reinforcement, it did not accomplish its purpose. The series was extended by the repetition of small doses of the mercurial (a grain or two) at short intervals—say every two hours, or even every hour when the symptoms were urgent. Under this treatment the strength of the patient usually gave way in a ratio greater than "pari passu" with the disease, and while the latter might remain the former was soon found, pretty certainly, to be gone. If this failure of strength happened to be decidedly marked, as it usually was, just in such proportion was alcohol indicated, not with any specific relations to the symptoms of the case, but as an agent mustering under the designation "stimulants," of which it was mostly regarded as chief, and the design of which was to recall temporarily the strength which injudicious measures had taken away. Hence they usually came too late to be of any permanent advantage, and when we were told that the doctor had invoked their aid, we concluded the patient was near his last.

It was thought that the most natural way to save life was to shut out death. According to this view, it was the duty of the physician to guard the avenues of his approach. If the assault was made through excessive action, high fever, bounding pulse, etc., etc., it was in this direction his defensive efforts were to be made and these excesses were to be modified by suitable measures until there was no longer danger from that quarter. If on the other hand death by asthenia was threatened, then asthenia was to be corrected, and here tonics and stimulants were manifestly demanded.

Without a wholesale rejection of the wisdom of the past, I would at once say it is not according to the above indications I beg leave to call your attention to alcohol in the treatment of disease. This agent, though generally regarded as neutral, a mere solvent of other drugs, has its distinct, well-marked and characteristic symptoms which we all have had frequent opportunities of witnessing. It is according to these, and upon the principle of resemblance to those of the disease that the indications are based. Nor is it only the external manifestations of its effects we should regard but more particularly the internal, upon the blood and through it upon other tissues so far as they can be ascertained.

The class of diseases referred to in the title of this paper is supposed to consist in a morbific action upon, and therefore a morbid change in the blood. This action and the resulting alteration in that fluid is manifested, it is true, to some extent, by external symptoms, but had we the means of prosecuting the research, it would be more intimately known by an examination of the blood itself. Our knowledge, however, here is extremely limited, and this I think is much to be regretted. There is, perhaps, no field of investigation that lies open to the pathologist as yet almost unexplored, that offers so great, and I venture to say, certain rewards to the successful explorer. If I be not greatly mistaken, it is in this direction we are to look for the key that will open many of the mysteries of pathology as yet unsolved. And what is still better, we may here find far more reliable indications for the successful employment of our remedies than we as yet possess.

If the essence of zymotic diseases consists in an altered condition of the blood, as there can be little doubt it does, then treatment upon the principle of similarity requires a remedy which will produce a similar change upon that fluid when introduced into it in a healthy or normal condition. As I have intimated above, the obstacle in the way of such practice is our very limited knowledge upon the subject. But, while we impatiently await further disclosures, which I have no doubt will, at no distant day be made—for the research will be eagerly entered upon as soon as we duly appreciate the possible, and even probable results—till then I say we must avail ourselves of the symptoms which zymotic diseases are known to manifest, and with these carefully compare those of alcohol, which are, unfortunately, but too well known, in order to make the therapeutical application of that agent.

As it is not my design at present to write a symptomen-codex I will merely give a few of the prominent symptoms of alcoholism as furnished by a writer, not a homœopathist, but an accurate observer of disease. Speaking of delirium tremens, he says, "The symptoms attending the access are anorexia, insomnia, muscular tremor, more especially tremulousness of the tongue and notable dejection. The pulse is generally feeble, and the surface cool. This stage continues for one, two, or three days."

"The development of the disease is characterized by mental aberration of a peculiar character. The expression becomes wild, the eyes either vacant or staring. The movements are quick. The patient is constantly in motion. He talks incoherently. His mind wanders from one subject to another."

"The insomnia continues, the patient gets no sleep for two, three, or four days, and even for a longer period after the development of the affection. The delirium is always much worse during the night, etc., etc." Again, we are told upon the authority of Christison, "In other cases this affection puts on very much the characters of a slight attack of typhoid fever." We can hardly fail to see the resemblance between these symptoms and those which characterize several of the worst forms of zymotic disease, which the memory of the reader will readily recall or books upon the subject satisfactorily detail. Could we but give the pathological effects of alcohol upon the blood with equal precision, and compare these with those of the blood-poison in the diseases in question, we would have almost an infallible guide for the employment of the remedy.

That alcohol when imbibed enters the blood I think admits of no doubt. This is proven by its exhalation from the lungs, as tested by the sense of smell long after it has been removed from the mucous membrane of the mouth. It is also found in the blood of drunkards when drawn from the veins, and even sometimes in the solids, in sufficient quantity to support flame. It was once doubted whether any portion of alcohol taken into the stomach underwent the process of digestion, and whether it did not wholly pass off by the emunctories unchanged. The result of the most recent adjudication of this question is, that while a very small portion may be digested, by far the greater part passes off unchanged. The question then with which we are now primarily concerned is, what effect, if any, has the alcohol during its presence upon the circulating fluid? Does it exert an action of catalysis, such as the morbific blood poison is supposed to do, or has it no action at all? It is just here we are at a loss, through want of sufficiently extended observation. It cannot be doubted that alcohol acts upon and changes the constitution of the blood, and from the fact that it is mostly eliminated itself unchanged,

that action is through that manifestation of force which we call catalysis, but of which we know nothing beyond its manifest effects. "The wind bloweth where it listeth, and thou hearest the sound thereof but canst not tell whence it cometh or whither it goeth."

Allen, our latest authority upon the pathogenesis of drugs, gives us no information concerning the effects of alcohol upon the blood. In an incomplete work on Materia Medica, by Drs. Marcy, Peters, and Füllgraff, of which we have but one volume, we are told: "One of the most important appearances in poisoning with alcohol is the fluid and venous condition of the blood. According to Steinheimer and Rœsh, alcohol acts directly on the blood, and intoxication is owing to an alcoholic venous plethora, in which the proportion of hydrogen and carbon in the blood is much increased."

"If alcohol be added to blood which has been drawn from a vein, the blood becomes dark, it loses its normal opacity, becomes more or less transparent and changes to a cherry-juice-like fluid. With the aid of a microscope we see the blood globules gradually losing their red coloring matter, which becomes uniformly dissolved and diffused through the serum, which then assumes a peculiar cherry-red color. This serum coagulates to the consistence of thick milk, but cannot form solid coagula, and no watery particles separate from it."

Researches into the changes of the blood in zymotic diseases have also as yet been meagre in their results. Alterations in solids found after death, have principally engaged the interest of the pathologist. Had he turned his attention to the condition of the circulating fluid during life and in the various stages of the progress of the disease, as it advanced to a fatal termination, he probably would have got a much better insight into the causes of the morbid appearances which he encountered upon the dissecting table, in a post-mortem, made, it may be, many hours after death. Early change in the blood may ultimately be found to be the precursor and true cause of the disorganization of solids which now seems to be regarded as the sum and substance of pathology.

Meagre as observations have been upon the condition of the blood in zymotic diseases, there seems to be an agreement that it is rendered of a more venous character, is darkened and becomes

more fluid. In these particulars the changes correspond to those ascribed to alcohol. In both, as we have already intimated, they are probably the result of catalysis and the action sufficiently similar to be antidotal or curative.

As I have already occupied so much space with preliminary remarks, I can but very briefly detail two cases out of many in which I have used alcohol as above indicated. The first is one of sporadic cerebro-spinal fever, or as some prefer, cerebro-spinal meningitis. I write from memory, but write only what I distinctly remember. I select this case because it was well marked and was the first that I had ever treated in this manner. It originated in Heidlersburg, a village of this county, unknown to fame, unless perhaps, for having for a day or two, afforded headquarters to the rebel generals, Ewell and Rhodes, whilst the hosts were marshaling for the great and decisive battle of Gettysburg. It is situated on the southern slope of one of the granite ridges which traverse this county, and about a mile north of the Great Conewago creek, a tributary of the Susquehanna, whose waters become very low during our long summer droughts. This village and vicinity has been characterized for years by the occurrence of isolated cases of this disease, at longer or shorter intervals.

The patient, whose case I detail, was a young girl of sixteen or eighteen years, of dark complexion, dark hair and eyes, and of a lively, active disposition. She had been employed in the post-office of the village and a small country store. She was seized with the usual precursory symptoms of the disease, but when I first saw her, early in its course, she was exceedingly agitated, countenance wore an extremely terrified, anxious appearance, and her hand was so tremulous she could scarcely conduct it to her mouth. I had shortly before read an account of a number of cases of that disease successfully treated with alcohol, I think, by Dr. B. W. James. This probably suggested the remedy, but the striking similarity in the symptoms to those I had witnessed in persons laboring under the influence of ardent spirits, confirmed the suggestion, and led me to the selection. I mixed deodorized alcohol with water in such proportion that the patient received from one-fourth to one-half a teaspoonful to each teaspoonful of

the solution, given at short intervals, not now precisely remembered—say one or two hours. In about forty-eight hours the urgent symptoms which gradually receded, had all passed away, and the patient made an excellent recovery. This woman still lives, is the mother of several children, and enjoys excellent health.

The second case I have selected, also a woman, is one of a somewhat modified typhoid fever. The invasion was more sudden and abrupt than is common with ordinary typhoid fever, greater heat of skin, more bounding pulse and earlier delirium. The patient was a married woman, mother of several children, one of whom had already attained to womanhood; her age not exactly known, say forty years. I did not see her when first called upon, but sent her aconite from representation. Saw her next day, when the more active symptoms had subsided, and others of a lower and more typhoid character had supervened. The case seemed to me somewhat puzzling. After using some remedies not now definitely remembered, without success, the tremulousness peculiar to alcohol led me to resort to that remedy as above, for a day or two, with favorable results. But after what seemed to me manifest improvement, she again fell back to her former condition, and this occurred more than once. I was thus led to search for a specific cause of this phenomenon. I inquired whether the waste water of the house could possibly reach the well, but was assured it could not. I then resorted to other remedies, but without result. Counsel was called and the remedies advised were adopted, but with no better success. I again returned to alcohol, expecting as before at least temporary benefit. About this time an accident led to an examination of the well, whence the drinking water of which she used a great deal was obtained. The result was a small dead animal (rabbit probably) was found floating upon the surface of the water, in an advanced stage of decomposition. When the well was emptied, bones of similar animals were found in numbers at the bottom. Their ingress had been effected through a hole in the frame-work enclosing the well.

Alcohol was now perseveringly continued, and with a better water supply, the tremulousness, extreme quickness of pulse and other prominent symptoms subsided, and the patient made a good, but somewhat slow recovery.

It will probably here be said that the change in the patient's condition was wholly due to change of water. But as I remarked, we had had before in her case, temporary good results from alcohol, which seemed to be overborne by some unknown cause, which led me to inquire into the condition of the water, the impurity of which seems to have been the unknown antidoting agent. That the water was the original cause of the disease, seems probable from the fact, that there were no other cases of typhoid fever in the neighborhood, nor did it spread from this point as a focus. The young people of the family were, I believe, all indisposed, but none obliged to keep to bed more than a day or two.

I would not, of course, be understood to propose alcohol as a panacea for the diseases of this class. It may, perhaps, be suited to comparatively few individual cases. My object is solely to propose it for consideration; and if I were to name any symptom as peculiarly indicating it, I would say *tremulousness.* If this be associated with diarrhœa, opium may do better.

In the case of a temporarily reclaimed inebriate, I believe I would not use the remedy, even although I might think it strongly indicated. It is related of an eminent clergyman, once intemperate, well known to me, that in his last illness his physicians advised brandy, an advice with which he refused to comply, even at the risk of life, as represented to him. He died, but we hope not from persistence in the course his conscience dictated as the right one for him.

SIX CASES OF INTERMITTENT FEVER.*

BY PAZ ALVAREZ, M.D., MADRID, SPAIN.

CASE I.—**Abnormal Pernicious—Apoplectic Form.**—El senor de S., 69 years of age, sanguine temperament, robust constitution and of habitual good health, was attacked at noon of March 18th, 1879, without any assignable cause, with a severe chill, which appeared in the feet, hands and dorsal region, and lasted half an hour; this was followed by a general fever, with headache

*Translated by T. M. Strong, M.D., Allegheny, Pa.

and intense thirst, which terminated in an hour and a half with a light but general sweat of short duration.

I saw him in the afternoon of the same day, and during the apyrexia. The face was pallid and the scleroticæ of a sub-icteric tint. He complained of general malaise, thirst and pains in the extremities; the tongue was thickly coated with a yellowish-white covering, which explained the anorexia that was present, as also the nausea and weight in the epigastric region. Taking into consideration the febrile paroxysm, and the symptoms already mentioned, I diagnosed an attack of intermittent fever, of a type as yet unknown, and for its treatment prescribed ipecac.[200] (Jenichen), three doses of six globules each, a dose to be taken at intervals of eight hours. The patient was still kept under observation.

On the 19th there was no febrile accession, and the symptoms enumerated disappeared, together with the nausea and the weight in the epigastrium, while the coating on the tongue was lessened.

On the 20th, at 11 A. M., thus anticipating by one hour, the chill of the first day reappeared, occupied the same locality and had the same duration. At the end of half an hour the fever appeared and was of a most severe form; the patient became restless, and complained of dry tongue, great thirst, oppressive fronto-parietal cephalalgia, pains in the eyes with photophobia, heaviness of the head and heat of the face; the temperature was 105°. This condition lasted for three hours, and was followed by a light but general sweat, which lasted three-quarters of an hour; with the termination of this period disappeared the few symptoms which remained from the fever stage. This second accession, which showed the tertian type, manifested the most severe symptoms during the period of the fever, and gave rise to grave apprehensions that it might develop into the pernicious form. Taking into consideration the characteristic symptoms of the fever stage, I prescribed four doses of bella.[200], six globules each, beginning as soon as the sweat appeared, and at intervals of six hours thereafter.

The 21st passed without any special symptoms manifesting themselves, but on the 22d, at 10.30 A. M., the chill again

appeared, and was followed in three-quarters of an hour by the fever, which manifested all the symptoms characteristic of the pernicious apoplectic form, and were as follows: Burning heat, insatiable thirst, deep-red hue of the face and scleroticæ, cephalalgia and stupefaction, incoherent and stuttering speech, pulse full and hard, supination, dyspnœa, dry tongue, loss of consciousness, stertorous respiration, involuntary urination, comatose sleep, profuse and burning hot sweat, temperature 107.2°. Half an hour later I was hastily summoned on account of the severity of the paroxysm, and when I arrived the symptoms were at their greatest intensity, and seemed to threaten a fatal termination. Taking all the symptoms into consideration, no remedy appeared to be so well indicated as opium. I dissolved eight globules of the 200th, in half a glass of water, and ordered a teaspoonful to be given every half hour. At the end of the third dose the apoplectic symptoms began to diminish, by the disappearance, first of the involuntary urination and the profuse sweat, and at the end of the eighth dose all the symptoms had disappeared. The patient was left very weak, and unable to give any account of what he had suffered.

The opium was continued at intervals of four hours until within two hours of the expected paroxysm on the 24th. At this date I was with the patient at 10 A. M., for the purpose of prescribing the indicated remedy as soon as the symptoms of a severe form presented themselves. The fever, however, did not reappear, and the patient from this time convalesced rapidly. As a matter of precaution a dose of opium was given every six hours for the following forty-eight hours.

CASE II.—**Abnormal Pernicious—Delirious Form.**—La senora B., 59 years of age, widow, lymphatic temperament, strong constitution, good habits, her usual good health somewhat broken, lives opposite one of the gardens which was in one of the public squares of Madrid, and in which she was accustomed to pass the whole day except when prevented by storms. On February 12th, 1880, when returning from one of her walks in the garden, she was attacked at 5 P. M. with general chilliness and trembling, thirst, pain in the head, and general distress through the whole body; to the chill, which lasted a quarter of an hour, there fol-

lowed a burning heat of the whole body, increased headache and thirst, lamentations, groanings, and restlessness; these symptoms continued till 8 P. M., when a profuse sweat appeared, and with it an amelioration of all the symptoms.

I was called to see the patient on the following day, and received from her the history just given, and from it diagnosed an intermittent fever of unknown type. In consequence of the heavy yellow-white coating on the tongue and the anorexia, I prescribed ipecac^{200}, four doses of six globules each, a dose to be taken every four hours, provided that the fever did not appear in the afternoon; if it did appear she was to stop the medicine and inform me.

On the 14th, at 5 P. M., the chill reappeared and was accompanied with trembling and muscular contractions which compelled the patient to cover herself even to the head. The chill lasted till 6 P. M., and was followed by the fever and the same symptons as at the first, but with an intense aggravation of the headache, and with a greater heat of the face and head, thirst with a desire to drink large quantities, vertigo, anguish and attacks of suffocation on account of the intense heat. The fever terminated at 11 P. M., and was followed by a general and profuse sweat, which lasted till one o'clock. In consideration of the symptoms characterizing the fever stage, I left the patient three doses of six globules each of nux vom.^{200}, with directions to take one dose at the appearance of the sweat and the others at intervals of six hours.

At 5 P. M. of the 16th the chill again appeared, lasting one hour, and was accompanied by the same symptoms as at the previous onset. At 6 P. M. the fever appeared and very soon became intense, and was accompanied with restlessness, violent thirst, unendurable headache, marked redness of the face, desire to throw the clothing from the bed, loquacious but mild delirium; at intervals the headache was more acute and the agitation greater. These symptoms lasted till midnight, when a profuse, general and very hot sweat appeared, which lasted till near morning. From the character of the symptoms of the fever stage during this paroxysm I feared that the intermittent fever would assume a pernicious delirious form, and taking into consideration the more prominent symptoms, which were the agonizing headache with

loquacious delirium, I prescribed five doses of lachesis[200], giving the first dose at the appearance of the sweat and the others at intervals of five hours.

On the 18th, the pernicious form was more marked. At 5 P. M. there was a chill which was more severe than the former ones, and which lasted till quarter past six o'clock. The fever was accompanied with dullness, obscure vision, vertigo and agitation, insatiable thirst, bright redness of the face, especially about the cheeks, and at intervals the cephalalgia became so severe that the patient uttered acute cries and doleful laments, clasping and compressing the head; the pains in the head became so acute that the patient lost consciousness and became delirious; the delirium was mild at first but afterwards assumed a violent form; the patient saw objects which frightened her, she jumped from the bed and ran around the room uttering cries, searching for imaginary objects, seating herself on chairs and then on the floor, immediately starting up and running around the room; when led to the bed she was with difficulty retained in it, and at the least inattention of the attendants she threw herself from the bed and repeated the same acts.

I was called in haste at 8 P. M., and arrived at the moment when she was running around the room with loquacious delirium and pressing the head with the hands. Informed by the attendants of all the symptoms which were presented up to the moment of the attack, and taking into consideration those which I observed in person, no medicine appeared to me so well indicated to combat the pernicious pyrexia characterized during the fever by severe headache, violent delirium and the greatest restlessness, as natrum mur. This I prescribed in the 200th dilution, dissolving eight pills in half a glass of water, giving a teaspoonful every hour until the appearance of the sweat, after which it was to be given every four hours. At the second dose the delirium and agitation began to subside; by the time for the third dose consciousness returned, and by midnight the fever was gone. The sweat which followed was of short duration and less abundant than before.

On the 20th there was no chill, and the patient, at 5 P. M., experienced only a slight malaise with some debility, which soon disappeared. The natrum mur. was continued for four days

longer, a teaspoonful every eight hours. The cure was complete, and there has been no return of the disease until the present time.

CASE III.—**Fever of a Tertian Type.**—La senorita B., daughter of the former patient, 22 years of age, lymphatic temperament, well built, and usually of good health, was attacked with a chill and fever at the same time as her mother.

On Feb. 12th, at 6 P. M., she had a slight chill, which lasted for half an hour, and following this a general heat and nausea, headache, inquietude, thirst, and flushed countenance. These symptoms lasted two hours and were followed by a slight sweat for an hour. The tongue presented a thick, white coating, and she complained of a bitter taste in the mouth. I prescribed ipecac.^{200}, a dose every four hours, for four doses.

On the 14th, the attack returned at the same hour, and lasted the same as on the first accession, but the fever was higher and the nausea and vomiting were more frequent and severe. In addition to these symptoms, the patient complained of an obstinate distress in the bowels. I prescribed nux vom.^{200}, a dose every eight hours, for three doses.

On the 16th and 18th, the same symptoms appeared as on the 12th. China^{200} and arsenicum^{200} did not produce the slightest modification in the symptoms.

On the 20th, the paroxysm occurred at the same hour, but its periods were longer and the symptoms more severe, especially during the fever, so that the thirst, nausea and vomitings were very distressing to the patient, and were accompanied with great restlessness, groanings and lamentations. Considering these latter symptoms, I prescribed puls.^{200}, four doses of eight globules each, one to be taken every five hours, in two spoonfuls of water. Under the puls. the fever disappeared, the paroxysm of the 20th being the last, leaving the patient entirely cured.

CASE IV.—**Tertian Type.**—Dr. S., lymphatic temperament, 30 years of age, married, of good habits, a beginner in homœopathy and a director of a mineral spring sanitarium in one of the provinces, located near a rice plantation, was seized in the month of September, 1880, with an intermittent fever of tertian type. He prescribed for himself the homœopathic remedy

which seemed to him to be indicated. However, the fever did not disappear, and the paroxysms were each time more severe, and he was finally compelled to abandon the direction of the establishment to a colleague, an old-school physician of the town in which the building was located. He consulted a homœopathic physician, who prescribed sulphate of quinine in large doses, although against the judgment of Dr. S.

The fever still continued, notwithstanding the quinine, and after the second paroxysm, Dr. S. returned to his home at Madrid. On the eighth day after his arrival at home, and without any assignable cause, the fever reappeared at the same hour and with the same symptoms, and he applied for relief to his former preceptor, one of the first homœopathic physicians of Madrid. The treatment, however, was without result, since the fever continued to recur every second day, anticipating in the hours of the accession, until the physician, convinced of the inefficacy of his treatment, left several doses of medicine and departed, saying that the attack would not return again. But the attacks became each time more severe and more prolonged, anticipating from three to four hours each day. Such was the condition at the end of October, 1880, at the time that I was called to see him. When first seen it was during the apyrexia, so that I was able to question the patient and receive in detail his former history, and the symptoms of the paroxysms. He complained of great debility, the skin had a faded, pallid color, but there was a sub-icteric color in the scleroticæ, under the lower eyelids, and around the nose. He experienced lassitude on moving and was very sensitive to cold and noise; the upper eyelids were slightly œdematous. The appetite was poor, and the urine slightly turbid and not very abundant. The paroxysms were repeated every second day, and always anticipated by four hours the previous attack. The chill lasted two hours, and was very severe, and accompanied with trembling, desire to be covered; no thirst, but he vomited, during the trembling and rigor of the chill, the last food taken. The fever stage was characterized by an intensity extremely marked; there was craving thirst, cephalalgia, somnolency with some incoherent talking; the whole stage lasting four hours. The sweating that followed was very copious, and lasted over three hours.

This array of symptoms, combined with the pathological antecedents, the sulphate of quinine which the patient had taken, and the rebelliousness of the intermittent fever against the homœopathic medication already employed, the debility, the pallid color of the patient as well as the sub-icteric tint, and the symptoms of the chill and fever stages, induced me to prescribe arsenicum, which was given in the 200th attenuation, two doses of six globules each, one dose to be taken at the appearance of the sweating stage of the next paroxysm, and the other one eight hours later; the patient remaining in the meanwhile under observation, and without medication for six days.

The arsenicum produced no other result than to diminish the time of the paroxysms and retard the hour of their appearance; the paroxysms only anticipated by two hours instead of four. There was no modification in the cold stage, the fever lasted three and the sweating two hours, the latter being less copious.

Finding no benefit from arsenicum, and the accessions continuing with the same symptoms, the somnolency in the fever stage being of longer duration with incoherent muttering, all of them being of grave import, and showing a tendency of the normal type to assume an abnormal, pernicious one, of a soporous or comatose form, and probably terminating eventually in the death of the patient, I prescribed opium^{200}, five doses of six globules each, a dose to be taken every three hours, beginning with the next accession of the sweating.

The opium caused the somnolency and the slight delirium to disappear, while the intermittent returned to its normal course, with its accessions anticipating two hours. Calcarea carb., tarentula, sabadilla and capsicum were successively given without any other result than the reduction in the duration of the attacks. While under the use of capsicum, the chill lasted only three-quarters of an hour, the fever two hours, and the sweat half an hour; but the paroxysms continued, nevertheless, to anticipate by two hours.

In view of the persistency of the disease against well indicated remedies, according to the symptoms of each accession, and considering the persistency with which the chill continually anticipated by two hours, I determined to give sulphur^{200}, three

doses of six globules each, the first to be taken at the appearance of the sweat, and the remainder at intervals of five hours.

With these three doses of sulphur the intermittent fever disappeared, and the patient entered into a period of convalescence which continued until a complete cure was established.

Notwithstanding that the last winter and spring were very wet, and intermittent fever was prevalent in Madrid, Dr. S. has not experienced any illness since the last of November, 1880, when the last paroxysm occurred; and in the beginning of May of this year he assumed direction of his former establishment.

CASE V.—**Concealed Intermittent Fever—Quotidian Type.**—L. V., a young girl 11 years of age, lymphatic temperament, dwelling on one of the plazas of Madrid, where there was a large garden in which she frequently played with her brothers, was taken sick on the 29th of March of this year, and complained of anorexia, nausea, vomiting, chilliness, heat and great depression of spirits. Her mother brought her to see me, and in consequence of the symptoms mentioned, and the yellowish white coating on the tongue, I prescribed ipecac.[200], dissolving six globules in half a glass of water, and ordering a teaspoonful to be given every eight hours; the diet to consist of broth.

The gastric symptoms, as well as the chilliness disappeared, but the fever, the anorexia, the bad taste in the mouth, and the mental depression remained the same, while the child was frequently changing position, lying down or rising up, according as the fever was present or absent. Neither ipecac., nux vom., nor puls., produced any effect.

On April 6th, a light left-sided cervical neuralgia appeared, which annoyed and irritated the child to an extreme degree. The neuralgia, which was of a mild type in the beginning, soon caused intense suffering, and produced, finally, a distortion of the neck to such a degree that the head rested upon the left shoulder, and could only assume its natural position with great difficulty, for the purpose of eating or sleeping. Bella., coffea and spigelia in the 200th attenuation, given successively, diminished the acuteness of the pain and limited the paroxysms to one only, but there was no modification of the torticollis. This single paroxysm came on at 5 P. M., after spigelia was given; the pain was

accompanied by a severe chill, general trembling of the extremities, thirst, and desire to be uncovered and to move, which she could not do on account of the chill. At 6 P. M., a high fever appeared with an aggravation of the pains in the neck, so that the child was continually crying and tossing around until 8 P. M. when a light general sweat relieved the pain. At 5 P. M. of the next day the same scene was repeated. As spigelia seemed to limit the neuralgia to a single accession, I continued this remedy for three days, hoping that it would complete the cure. As this result did not occur, and there was evidently present a quotidian intermittent fever, which had been masked or concealed until this time by the gastric symptoms first, and later, by the neuralgia, and noting, besides, the symptoms characteristic of the paroxysm, I prescribed chininum sulph.[200], six globules in half a glass of water, a teaspoonful to be taken every three hours, beginning as soon as the sweating stage of the paroxysm of April 13th appeared.

On the 14th, neither the paroxysm nor the neuralgia appeared, and to the great surprise of the parents, the child began to raise the head, and on the 15th the torticollis had disappeared.

The child convalesced rapidly, which soon ended in a cure, and has not been sick since that date.

CASE VI.—**Masked Quotidian Intermittent Fever.**—La senorita P. M., 18 years of age, nervous temperament, impressionable disposition, and of general good health, was seized with a very acute and frequently repeated paroxysm of cough, on the night of May 4th of this year, in consequence of having remained a long time exposed to the open air during the evening of the same day.

This cough was dry, and so severe that it did not give one moment's peace to the patient, either for sleeping or eating, and had several times produced attacks of vomiting. She had no fever, pain in the head, nor any other perceptible symptom. Thinking the cough to be due to a chill I prescribed aconite[200]. This medicine producing no amelioration, I followed it with bella., bry., dros. and cina.

On the 10th of May, I gave spongia, since the cough had a croupal sound, which modified its intensity and frequency until

6 P. M., when it was aggravated in an extraordinary manner, presenting a very severe general chill, with trembling and chattering of the teeth; at 7.30 P. M., a high fever supervened, which lasted until 10 P. M., followed by an abundant sweat, lasting until midnight. The cough during the period of the chill and fever did not cease a moment, being at this time suffocating and dry; but as the sweat appeared it began to diminish, and ceased finally for several hours, allowing the patient to sleep.

The cough, which had lost its croupal sound on the 11th, continued to slightly annoy the patient during the day, and at 6 P. M., it again took on an aggravation, presenting a picture of an intermittent fever, with the same symptoms and duration as on the former day. There was no doubt that I had been treating a latent intermittent fever, which had been unmasked by the medicine employed, so I prescribed chininum sulph.[200], three doses of six globules each, one to be taken at the appearance of the sweat, and the others at intervals of four hours.

So marked was the relief experienced that no paroxysm appeared on the 12th, and the cough was sensibly diminished. I left her without medicine for two days.

On the 14th and 15th, I observed a slight return in the evening of the fever alone, with increase of the cough, but which disappeared under puls.[200]. The patient entered upon a slow convalescence, greatly debilitated, taking at first, merc. sol.[200], and then sulph.[200], for the purpose of removing the cough and mucous expectoration, which had appeared, resulting finally, in a complete cure.

Dr. Morgan: I have listened with great interest to the reading of this exceedingly instructive paper. It is worthy of careful study. I am reminded of the results of several cases of my own. I have a pathological theory with reference to fever, corroborated by Wagner, Waldeyer, etc., which is that the original condition is that of a neurosis; the confirmed condition is "parenchymatous inflammation," in which the liver, spleen, pancreas, muscles and dermal tissues are involved. In many cases of intermittent, with no voluntary complaint of the right hypochondrium, the liver, on

physical examination, shows soreness and a slight degree of enlargement and projection of its lower edge. I never omit an examination of the liver, and I find this slight enlargement and soreness in most cases. I think that parenchymatous inflammation should be understood in a way in which it is not always understood. When a lung is inflamed through and through it is called, in the *old* phraseology, "parenchymatous inflammation." Modern pathology differs. When the functional cells, as in the tubules of the kidneys, the secreting cells of the liver, blood-making cells of the spleen, are rapidly multiplying, inflammatory hyperplasia is going on; and this is parenchymatous inflammation, in the modern sense, whereas in former days we used to consider inflammation of all the elements of a solid organ as parenchymatous. We do not so define it now. We make a distinction between interstitial and cellular hyperplasia, and the latter is parenchymatous inflammation. If we do not understand this we do not understand intermittent fever. The spleen, liver and pancreas have been found distinctly in this condition, and if I discover, in intermittent fever, that there is evident soreness and engorgement therein, I draw the inference that there is not only hyperæmia, but parenchymatous inflammation, and to cure this the parenchymatous inflammation of all the organs must be cured. If this be the case we have a pathological basis for the treatment. If we knew how to early treat this inflammation of the organs, we can with parenchymatous, hepatic, splenic and renal remedies, as gelsemium, capsicum, probably clear out the trouble. I have relieved such neurotic or incipient cases with four doses of gels. followed by sac. lac. When the malady has passed the stage of neurosis we have a tender, enlarged liver and a coated tongue, showing the parenchymatous inflammation of the mucous membrane. The paroxysms recur so long as the liver is tender, and the coating remains on the tongue; and so long we must persist in giving medicine. After the drugs named, or others if the malady lingers, even without much local trouble, sulphur, or hepar, or arsen., etc., may be expected to finish the cure. Hahnemann gives in the Organon a like method of treatment. In that book I find practice as well as theory. Therein Hahnemann shows how to treat intermittent fever. He directs us to give the remedy adapted to the symptoms,

not of the whole paroxysm but of its *predominating stage*, the chill *or* the heat, etc. Hepar sulph. and sulphur are among the remedies which may be given when, after exhausting other remedies, the strength fails and the symptoms remain with intensified force; or when, the conspicuous symptoms having been obliterated, the paroxysmal condition lingers in an obscure way, owing in either case to the lingering of the said parenchymatous inflammation. In the report of Dr. Alvarez we observe the illustration of this practice.

CLINICAL REMARKS.

BY H. NOAH MARTIN, M.D., PHILADELPHIA.

I once called Dr. Jacob Jeanes in consultation to a case of typhoid fever in which, among many other very bad symptoms indicating generally arsenicum, the patient had very cold extremities. The good doctor approved my treatment and then incidentally remarked that calcarea carb. was a medicine to think of in all cases where the circulation was deficient in the extremities, even in typhoid fever.

My mind always recurs to that remark whenever I have a case of illness in which that symptom is prominent. The first case I mention in this paper illustrates its usefulness in such cases.

I have not in this paper attempted to give cases whose pathology, prognosis and diagnosis have been elaborated to a scientific precision, but I have rather aimed to give a few symptoms, isolated or grouped, which have been cured by the appropriate medicine. They are taken from my case book, the symptoms having been written down at the time of the examination.

Miss Flora G. Has various menstrual difficulties. Has suffered for months from "coldness of the extremities and heat in the head with vertigo." Cured by calcarea carb.[4], every two hours.

A man over 60 years old, a chronic patient, having general catarrhal complications, involving at times the nasal organs, bronchii, stomach and bowels, kidneys and bladder, was occasionally attacked with "pain in region of right kidney, bloated abdomen and stomach after eating; red sand in urine." These symptoms were promptly relieved by lycopodium[30], one dose.

Mrs. J. D. T. had sore throat; nearly suffocated; profuse salivation, with sensation of dryness in the roof of the mouth with smarting; awoke in night with hoarseness and croupy cough. The throat looks swollen but not very red. Gave amorphous phosphorus third dec. in water every hour, which soon relieved her. In a few days she had vertigo and prostration, which I attributed to overdosing with phosphorus, and which was promptly relieved by a few doses of nux vomica[6].

Mr. D., a single man, and a victim of self abuse, says he has never had sexual intercourse, and has had seminal emissions very frequently during about ten years. He is now 27 years old. He has them with dreams, worse when lying on his left side. He is tall, slim and weak. He has acne on his face. I prescribed for him amorphous phosphorus[3x] every two hours. Twenty days later, he has had no erections or emissions, and is much stronger. It is now eight months since the commencement of treatment and he has taken no medicine since the middle of July and still remains well.

On the 13th of January, 1881, A. H. received helon. dioica[3x] every two hours, for profuse urination. On the 27th of the same month he says: "It seems to have reduced the quantity of my urine as well as increased the intervals between urinating, and I am not disturbed by wanting to pass water quite so early in the morning." I gave him sac. lac.

Thomas T. says, when he undresses the itching of the skin is intolerable; and after his bowels move he has itching and burning in the rectum and anus. One dose of oleander[30] relieved him promptly and permanently.

Frances S., an old maid, had itching of the skin when undressing, which was promptly and permanently relieved by one dose of oleander[30].

Arthur M., eight years old. Scrofulous, thin, pale; has light complexion; has large, prominent, front upper teeth; thin, distended nostrils. Diarrhœa drives him out of bed in the morning before daylight; has similar stools also immediately after each meal. Stools stink and always contain undigested food. Rumbling of gas in hypogastrium. Frontal headache. Restless sleep and nightmare. Always dreams of fire. Any excitement

or fright causes his bowels to move. Gave him amorphous phos.[30], one dose every twelve hours. The prescription did not have to be repeated. He has had no return of the symptoms, now seven months since.

Mr. W. had great stiffness in the muscles of lumbar region while bending over for a short time, causing great difficulty when assuming an erect posture; without any serious pain. Hydrastis can.[3x] cured him in a few days.

Mr. F., a Jew, laughed at the idea of taking homœopathic medicine for chilblains on his hands and feet. He didn't believe in homœopathy. Against his sneers and without the aid of faith, one prescription of agaricus musc.[30] cured him, and he was gentleman enough to come back and tell me so.

February 7th, 1881. A lady, Mrs. T., nursing a child, complained that her milk, though copious enough, was thin and blue, and did not nourish the child. "It throws it up." She has a sensation of bearing down after urinating, and "cannot close herself up." Gave her silex[30] every two hours. February 20th, reported herself cured.

Mrs. W., aged 73, says: Every month, about the time I used to have my menses, I have an attack of vertigo. About ten days ago I had it and took a dose of anti-bilious pills. I have had a diarrhœa ever since; it hurries me out of bed every morning, and it is getting worse. It occurs also several times daily. I have slight frontal headache, and flatulence in the lower part of my abdomen, and the vertigo continues. Gave her amorphous phosphor.[30] every two hours. The next morning her diarrhœa did not recur, and within two days she was relieved of all unpleasant symptoms. Two months later she told me that the attack of vertigo had not made its usual appearance.

Mrs. L. L. H. had uterine disease, also sense of fullness after eating. Sighing breathing. Feeling of great weight in hypogastrium. Rumbling of wind in left side and in sigmoid flexure. She was cured by one dose of lycopod[30].

Miss C. has chronic sore throat; always better in wet weather. Very much relieved by nux vom.[3x] in repeated doses.

In the above transcript of cases and symptoms, I have avoided the technical language of science and have used the plain language

of my patients, nearly always. This language is sometimes identical with the words used by many of our provers, who were people moving in the middle walks of life and inexperienced in the medical phraseology of the more learned.

I am led to remark here that our more recent works on materia medica seem to avoid the homely expressions made use of by the sick and by our provers, and thus lose much of their usefulness.

Dr. Guernsey: What is the color of the diarrhœic stools, under amorphous phosphorus ?

Dr. Martin: They are dark.

Dr. Guernsey: I cured a case of diarrhœa with the peculiar morning stool, in which the discharges were black.

Dr. Mohr: I think we should retain the simple language of our patients in the record of symptoms, and thus preserve the genius of the case.

Dr. Toothaker: Ten or fifteen years ago I was called to attend a lady who, some twelve or fourteen years previously, had had an apoplectic attack, which had left her lower limbs paralyzed. After attending her for several years she had another stroke, and I found her in a condition of approaching death, breathing with difficulty and unable to move her body; her death was expected by the family. There was the general condition of debility following apoplexy. I succeeded in relieving the alarming symptoms, and so far restored her that she could move herself about, and gradually, in the course of a week, the debility passed away, and she became better able to take care of herself. One feature continued for nearly two weeks; she vomited everything she ate. Nux vom., ars., puls., ipecac., and various other remedies failed to relieve this condition. She vomited constantly and threw up every article of food just as she ate it. The peculiarity of the case was, that the food remained in the stomach in this undigested state fourteen hours before it was thrown up. Every day was the same, no matter what she ate, or whether it was little or much. The appetite was pretty good. At the close of this period she ate beefsteak, and ate it well. Fourteen hours after the food was taken it was ejected. I went to Dr. Martin, and we decided to give oleander, third dec., a dose to be taken

every two hours. In twenty-four hours from that time the vomiting had stopped altogether. She began to digest her food, gradually regained strength, and is now doing well.

LOCAL CAUSES FOR DIPHTHERIA. IS IT HIGHLY CONTAGIOUS?

BY J. E. JONES, M.D., WEST CHESTER.

Recently, I saw the following, taken from a Boston paper: "An official of the Boston Board of Health, who has been called to examine nearly two hundred houses in that city in which diphtheria occurred, reports that in every instance he has discovered a derangement of the waste pipes, either above or below the surface before they enter the sewers."

This statement having arrested my attention, some interesting cases presented themselves, which would corroborate the testimony that local causes are often the producing influence.

I was called to see Mrs. —, who had been suffering from great prostration in the mornings with slight soreness of the throat, considerable fever, high pulse and headache. The most prominent distress was the early morning excessive weakness. This, at first, was not attributed to any other than natural causes, the patient being generally in delicate health. She was slow in recovery; the best indicated remedy being apis. At no time was there any deposit on the tonsils or throat, and diphtheria was not suspected.

A few weeks after this a sister of the above lady was taken down with the same excessive weakness in the mornings, together with decided diphtheric flakes plastered over the pharynx.

Within two or three days their servant was sent home on account of sickness, and her physician pronounced it diphtheria. In less than a week the husband was sick with the same excessive morning prostration, and shortly a diphtheric deposit showed itself upon his tonsils and uvula.

As there were no cases of diphtheria in the neighborhood, I said there must be a local cause for this disease, but was met with the information that the house was new, having been built only

two years, that there was no unpleasant smell that could be detected anywhere. The drain from the kitchen ran out over ground, and was kept clean, and the sink from the water-closet and bath-room was out of doors. I asked to see it, and found it was a well dug to water, or supposed to be, and covered up in the yard, hermetically sealed by two or three feet of brick arch, dirt and sod, which, it being winter, was solidly frozen, making the well so air-tight that when a gallon of water ran into the sink their was no place for a gallon of air to get out but through the same waste pipe, and hence into the house. I at once ordered a hole to be opened in the top of the well and connection to be made with a hot smoke-flue near by. The plumber, who did this, who first opened the hole in the arch over the well, came into my office three or four days afterwards, complaining of the same excessive weakness in the mornings and slight sore throat, which in a day or two developed the characteristic diphtheric deposit. Not knowing that he was the plumber in the case first narrated, I questioned him as to where he had been, and he told me the only place he thought it possible, was when he knocked out the first bricks to open a hole in Mr. G's well there came a gush of gas, but he did not notice it so unpleasant as in many other cases. Certainly this corroborates the cause of the sickness in the family.

In due time, after the introduction of the 4-inch flue into the heated chimney, there was no more sickness of the kind connected with the house.

Make a note in these cases that there was no one who took diphtheria from them, although several came in to assist in nursing, and no cases followed these in the neighborhood, near that time.

Again. A little girl of eight years of age was taken with what the parents thought to be mumps. On Tuesday or Wednesday, both sub-maxillary glands were very much swollen and the breath very offensive. Still thinking that it was a simple case of mumps, which would right itself, they neglected to send for a physician until Friday evening, when dangerous symptoms, such as enormous swelling, foulest breath, great prostration, high fever, etc., were present.

On being called to the case, I was told I would find a severe case of mumps, but on entering the room the foulness of the air and its peculiar odor was sufficient to cause me to exclaim, as I entered, "This is not a case of mumps, but of diphtheria!" It was a terrible case, and died the next day, with all the peculiar symptoms that specialize the diphtheric poisoning.

The day this little one was buried, I was called again to a younger sister, of about six years of age. This little girl ran through the same stages as the former case had done, with about the same severity, blood-poisoning and all. To say that these cases were terrible in every feature, hardly expresses their gravity, and after a desperate fight, nitric acid, alcohol and a high, moist temperature, with good ventilation, conquered, and she recovered. Then followed the rest of the family, one after the other, all with symptoms of the disease, more or less severe, which awakened the inquiry as to the local cause. Nothing could be found save the same covered, hermetically sealed well, taking only the waste from the bath-room.

A hole knocked into the top of it and draft produced by suction of an air flue corrected the trouble. Note again, no one contracted diphtheria from these cases, and they were severe ones, even though they at first considered it only mumps. There was none in the whole neighborhood. Many came to help them nurse and attend the funeral yet not one case was known to come from it. I was there as often as six and eight times a day, looking into the children's throats, inhaling their breaths and handling them, but felt no injury or sore throat, or even general weakness. Certainly diphtheria is not the highly contagious disease that many would have us think.

Another case: A large boarding school in the neighborhood, containing about three hundred boys and girls, was slowly and lightly afflicted with diphtheria on the boys' side. Only one or two a week would be called to the nursery, at first very mild cases, then gradually increasing in severity. The allopathic physician who attended the school, with the House Committee of the Trustees, went carefully over the school and pronounced the cause to be contagion. A few of the scholars being homœopathic in their proclivities, desiring that treatment, I was sent for.

After watching the disease for some time I said decidedly, in the presence of the Superintendent, that this was not caused by contagion, but was from some hermetically sealed well that had either an opening into the boys' gallery, where they congregated, or was alongside of a stone wall which could easily furnish an opening to the boys' gallery. This opinion I based upon these data: 1st. The disease commenced mildly and gradually increased. 2d. It was almost wholly on the boys' side (only three or four cases being on the girls' side, which were slight, and if I remember right, only by those having brothers on the boys' side and more or less over there with them). 3d. Where a boy would be taken who slept with another boy, the second would not necessarily be contaminated. Such was the case in several instances. 4th. It could not be contagion for it would have gone through all the school in a few weeks and many be taken down at the same time, but, on the contrary, only one went to the nursery at a time and but three or four during the week. 5th. If it was contagion the severer cases would have come first and at once.

For these reasons I said there must be a well somewhere, and on inquiry of those who knew the drainage of the school, sure enough under the boys' gallery, close by the stone wall supporting it, there was a well covered over with tons of coal and four or five feet of earth, being the receptacle of all the water-closet and bath waste from the boys' nursery. When this was found I said, put a four-inch pipe to the nearest hot air flue and in three weeks from this date there will be no new cases. It was so.

Note: Could it have been so if diphtheria is highly contagious?

Let me report still another case and cause: J. W. J., from the country, having a large family of children, sent for me to see his child with sore throat. I found a case of diphtheria well marked and violent. The child being young, diphtheric croup set in and the patient died. Another child was taken, and the whole family within a few days were more or less influenced, two others with diphtheric croup, very seriously, yet all the others recovered save the first case. Of course we hunted diligently for the cause but could find no covered well. The drainage was all over ground and the privy open and cleaned out from behind frequently. The cellar was all perfect; no decayed vegetables. I still asserted there

must be some cause, as no one near them had this disease. After hunting unsuccessfully the mother said she remembered a little incident that might throw some light on it. About two weeks since their drinking water had a peculiar taste; some observed it and others did not. About a week before the first child was taken the boys were pumping hard at the pump and up came a large mouse denuded of its cuticle and extremely putrid. The boys called their mother to see it and it was carefully examined. After this the peculiarity of the water ceased and nothing more was thought of it until now remembered. Evidently the mouse had been lodged in the bucket of the pump, there becoming putrid, and all the water used in the house passed over its body.

Note: Though these were bad cases those who came in to help care for them and attend the funeral were not afflicted. Not a case was known to originate from them. All the family had it, but all the family were exposed to the same cause. It was not contagion.

Another case, with another but similar cause: Mrs. D. J. came with her two children from several miles distance to recruit at her mother's, all of them being exceedingly prostrated in general strength, especially in the mornings, with slight granular sore throat and light diphtheric deposits on them. They had been attended by another very good homœopathic physician, but not with success, because the cause of the disease was still prostrating them. As soon as I noted the excessive prostration in the mornings and the diphtheric deposit, I assured them there was something wrong at home. The sewerage of the house was my first accusation and supposed the drain pipes which carried away the waste from the kitchen, water-closet and bath must have a leak in or near the house. The husband went home, and with carpenter and plumber made a most thorough search, but found nothing; the drain being entire, ran to a considerable distance into an open sink out in the field. As they were about giving up the endeavor, the well supplying the house with water was thought of and carefully dragged, when up came an old broom decayed and green, also about half of a ham in the same condition, which was evidently to all parties quite sufficient to taint all their drinking water. This rectified, all was right again.

Note the excessive morning prostration and there was no contagion.

One more case and I will trespass upon your patience no longer: Mrs. C. H. sent for me on account of excessive weakness, principally in the mornings. On seeing her she complained also of slight sore throat, aching over her, some headache, but she had been exceedingly prostrate every morning for the past week, so that it was only after repeated efforts she could get dressed and down stairs. I said to her, you have a diphtheric sore throat, and to-morrow there will be membrane plastered all over your tonsils; which came to pass. Asking about the rest, they were all reported feeling weak and badly and had slight sore throats. Suffice it to say that after search another covered well was found sending its emanations into the house through the drain pipe, which, when properly ventilated, gave no further trouble.

Mark the same note as in the last case. Excessive weakness but no contagion.

Are not these cases sufficient to call to our attention the many local causes of diphtheria, and to raise the question, is diphtheria so highly contagious as is usually supposed? Also, that there was one general symptom which should attract our attention, viz., the excessive morning prostration.

In discussing the contagiousness of this disease do not get *contagion* confounded with *infection*. That the disease is infectious few will for a moment question, but that it is contagious the above cases place it in doubt.

(Contagion, from con and tago, to touch together.)

(Infection, from in and facio, to make or thrust in.)

Dr. Walker: Speaking of the contagion of diphtheria, the question is, when is the disease most contagious, while the patient is living or after death; before death or when attending the funeral?

Dr. H. N. Martin: I have been asked that question many times and always tell my people that it is not a contagious disease. A person with an empty stomach who goes through a room that is not ventilated may take diphtheria. The system

being debilitated as in typhoid, may be infected, but that it is contagious, like measles, small-pox, etc., I do not believe. It is possible with diseases such as scarlet fever, mumps, etc., which rarely occur the second time. Such diseases are contagious; those that recur again are not contagious.

Dr. Morgan: Were the wells near the cesspool?

Dr. Jones: There was no connection; the cesspools were away off, and the pipes were run into the house.

Dr. Morgan: A drinking well absorbs from all around it for a square of its own depth.

Dr. Van Artsdalen: Does the hot air produce a draft, or is it forced into the well?

Dr. Jones: It only produces a draft.

Dr. Lee: The suggestion is most excellent. The draft must be constant. In the summer the flues are not hot and may fail. Diphtheria is infectious rather than contagious. I contend there is a defect in the drainage where there is diphtheria. The water-closets and wash-basins are the bane of our cities. In most cases there is some local cause for diphtheria.

Dr. H. N. Martin: Diphtheria is worse in country places, or arises in different places, and there is a local cause, but we cannot always find it.

Dr. Dudley: We find a great many cases of pharyngeal inflammation, not diphtheritic in character, occurring from bad drainage and sewage. During the spring I attended a family in which there were five cases of tonsillitis with pharyngeal inflammation. There was no exudation. One case ran on to suppuration. There was severe constitutional disturbance. The cases came one after another, in periods of six to seven days. This house and others in the same row have wash-basins in the front rooms from which waste pipes lead into wells under the floor.

EPILEPSY.

BY THE HOMŒOPATHIC MEDICAL SOCIETY OF PHILADELPHIA COUNTY.*

Symptoms and Causes.—With the permission of the society, I will reverse the order of the announced title of my paper, and consider first, the *causes*.

CAUSES.—Everybody knows that there is a specific disease, commonly called "fits;" that more or less mental aberration, imbecility or mania, etc., often attends it; and that it is among the most intractable of human ills. Hence, in ancient days, it was naturally attributed to the direct agency of demons. Indeed, even in our own day, this belief is not obliterated, and there is no mean authority to be quoted in its support.

Our business, as medical men, however, is not with that aspect of the subject, *pro or con*. Causes, proximate and remote, which concern the *physiology* of the malady, as a *physical* condition, simply, are our sole province in etiology.

I. Epilepsy is at once a chronic and an acute disease; chronic, as to the convulsible state, in which the patients perpetually live; acute, as to the individual paroxysms, or seizures.

These will be considered in order.

The phrase, "acute epilepsy," however, has been applied particularly to eclampsia, which resembles epilepsy in the type of its paroxysm. It is nevertheless rejected, arbitrarily perhaps, as its occurrence usually depends on well defined conditions, which epilepsy, as yet known, does not. In spite of this, true epilepsy is sometimes ushered in by

(1.) *Infantile eclampsia;* remaining after apparent cure, or breaking out anew in later years. This may connect with

(2.) *Heredity;* either of strictly epileptic or of neuropathic parentage. By "neuropathic," we mean that general morbid tendency of the nervous system, which seems to pervade some families, whereby various exciting causes determine different

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*This paper was prepared by a committee consisting of Drs. J. C. Morgan, W. C. Goodno, A. Korndœrfer, C. Mohr and E. A. Farrington. The clinical cases inserted as an appendix were contributed by those whose names are attached to the reports.

members to become hysterical, hypochondriac, insane, epileptic, cataleptic—even neuralgic. Parental *alcoholism* is a frequent antecedent; original parental dipsomania, or else the secondary effects of the alcohol itself upon the nervous system, being accountable for the inheritance.

Just as with various dyscrasiæ, so in epilepsy, a generation may be skipped in this hereditary neuropathic transmission, the grandchild resuming the morbid succession. All nervous diseases hereby assume a mutual relationship, which ought never to be forgotten. *Consanguineous marriage* promotes the origin, and especially the perpetuation of the neuropathic state.

Of all the recognized causes of the epileptic constitution, heredity takes, indisputably, the first rank.

(3.) *Dycrasia*, scrofula, rickets, syphilis, (?) and bad feeding promote the epileptic inheritance.

(4.) Sexual disorder; either as excess *in coitu* or onanism; or as absolute continence; all are recognized by good authority, as real, but extremely rare causes. The fact is also noted that masturbation is a widespread vice, hence far from certainly connected with any one malady; and furthermore, that it may be contracted after the "epileptic change" has set in.

(5.) Per contra, *robust general health* is compatible with epilepsy. *Mental or emotional strain*, formerly credited with great etiological force, is now considered a more uncertain, yet a real cause. Terror, grief, and even joy, may cause the first seizure. The foregoing causes are more or less recondite; the following are more tangible, viz.:

(6.) *Nervous lesions*, of a gross and palpable nature, as of the peripheral nerves of the brain, or of the spinal cord. The peripheral lesions are the most common of these causes, and may involve either sensitive or mixed nerves, and probably also purely motor nerves. Wounds are the common occasion of such lesions; the process of dentition, however, first or second, is a very probable one; and not a few cases of epilepsy are obviously connected with bad teeth. Optical defects, involving errors of refraction and accommodation, are also to be thought of as possible factors, under this head. I have witnessed the connection, at least, with epileptiform attacks, in two young girls, both of

extraordinary vivacity, and both having also slight malposition of the uterus. Eye treatment in both had a good effect.

The peripheral nerves most commonly affected, however, are the sciatic, and the fifth pair; yet any others may be involved. A case in my own practice, to be reported by Dr. C. Mohr, involved the right cervical nerves at the back of the 6th vertebra; a bullet received in battle, over one year previously, was there lodged; its removal was followed by immediate cure. Cicatrices, tumors, neuromata, are to be added to the occasional causes. Merely touching an epileptogenous cicatrix may sometimes bring on the seizure. That many obscure cases may depend upon some such lesion, concealed from ordinary inspection, is by no means impossible.

It is interesting and important to note that such lesions do not forthwith incite epileptic attacks. Weeks, months, or years may intervene, during which, we may presume that neural metamorphoses, at both the peripheral and the central, as well as the intermediate portions of such nerves, take place gradually, until the epileptogenous condition is induced. Now, notwithstanding the great obscurity attending other forms and causes of epilepsy, I cannot doubt that in all cases, something similar must surely take place. The mere absence of gross changes, post mortem, is of no weight against this view, inasmuch as only a microscopic examination, coextensive with the whole nervous system, can negative the analogy. Fortunately for our future prospects, we may probably be able to limit such examinations to those nerves which are the paths of the so-called "aura," or warning, at the beginning of many seizures, and which may proceed from either external or internal organs. Certainly, such examinations are indispensable, and ought to, and have even now, proved much richer in information than the mere gross inspection of the centres of the brain and cord, however perfectly conducted.

The cortex of the brain offers a peculiarity. It is not a "centre," in any proper sense, although within the bony neural canal, any more than are the muscles of a tortoise, similarly enclosed, but is to be classed with other peripheral nerve-tracts, in regard to injuries leading to epilepsy. All peripheral nerve-tracts seem to possess inhibitory powers over the action of the real

centres, all of which lie at the base of the brain, and near the median line, being, indeed, according to Küss and others, only the spinal cord extended upward within the skull. Inhibitory powers, according to Brown-Sequard,* are the levers of not only the normal regulation of nervous action, but as well, of convulsions and paralysis. Plus or minus of inhibitory action largely determines the intensity of central action. Inhibitory powers, therefore, are not by any means confined to the cardiac branches of the vagus nerve.

In judging of *causes*, one needs to know what constant and tangible lesions are found, and how they occurred. Now, a nearly constant lesion, in *old* epileptics, as shown by Schrœder van der Kolk, is permanent vascularity, and other changes in the convulsive centres, the medulla and pons varolii. But, as acknowledged by him, this lesion is more fairly to be regarded, in such old cases, as the *effect of the paroxysms*, and not as the cause of them. It would, however, constitute an ever-present means of convulsive cumulation, ready to be discharged on every slight provocation.

Something must still be found lying back of this; some vaso-motor or inhibitory centre, there must be, whose influence being paralyzed, or whose tissue being degenerated, such vascularity, and such over-action of the medulla and pons, become possible.

It seems very surprising that the discoveries of Echeverria in this direction have fallen on such dull ears. He carefully examined fifteen cases,† post mortem, and found, *in every instance*, degeneration of the ganglia of the cervical sympathetic, whose filaments are partly distributed within the skull. That these are distinctly vaso-motor is well known; and it is a single step from this degeneration to encephalic congestion, and cumulative activity of such regions as are thus affected.

Strangely, indeed, but as usual in other diseases, the sympathetic nerve receives but little credit in the rôle of epilepsy. Nothnagel belittles the positive discovery of degeneration in its cervical ganglia, by Echeverria. These observations I leave to the writer of the pathological paper of our committee; but mention them

* Lectures on Convulsions and Paralysis.

† Since increased to twenty-six, all positively confirming the involvement of degeneration of the sympathetic ganglia and plexuses, in epilepsy: first, as connective-tissue sclerosis, and afterwards, retrogressive metamorphosis.

here to point attention to this nerve and its lesions, along with those of other nerves whose presence may be causative of epilepsy. In further support of the claim for it, note my own case of a bullet among the nerves and vertebræ of the neck. Its position at and below the transverse process of the 6th vertebra brought it into close relation, not only with the spinal nerves, but as well with the vertebral artery, which here enters its foramen in the same, to ascend to the medulla oblongata and pons varolii, the accredited centre of the epileptic spasm. This artery bears with it a profuse supply of filaments from the inferior cervical ganglion of the sympathetic. That the bullet impressed the artery, and its accompanying sympathetic branches, is exceedingly probable. That, in part at least, it thereby caused the epilepsy, who can deny? Pardon an additional inference, quite necessary also, as to the disharmony possible, between the circulation of the medulla and pons, by means of the vertebral arteries, and the vaso-motor powers of sympathetic filaments derived from the third cervical ganglion, usually found fused with the first dorsal, by the way, on the one hand, and the blood-supply of the anterior and middle lobes of the cortex cerebri, a great inhibitory region, on the other hand; the latter obtaining its sympathetic nerves from the first cervical ganglion along with the carotid artery; also probably, from the ganglion of Ribes, located upon the anterior communicating artery of the brain, in which the two sympathetic trunks unite above.

Disharmony of circulation between the antagonistic fore and hind brain, through this vaso-motor inequality, may well account for many of the phenomena of epilepsy.

Still further, allusion to the fusion of the third cervical ganglion with the first dorsal, has already been made. Etiology still claims this field; for from these two ganglia arise also, both cardiac and splanchnic nerves, directly associating the heart and the abdominal viscera with the medulla oblongata and pons; hence, we may think of this as the path of an aurá, or warning of epileptic seizure, arising, for instance, at the heart, or at the epigastrium; the latter being the case with one of the young girls above referred to. Besides, we learn that gastric nervous disorder may well be the proximate cause in some cases of

epilepsy, and that its successful treatment must be a gastric treatment; and, of course, this therapeutic goal is the aim and end of our labors here. Angina pectoris, too, is now regarded as having affiliations with epilepsy. In the future, let the pathologists take notice, that the sympathetic nerve and its connections must be better studied in all obscure diseases, particularly in epilepsy. The drugs to meet this anatomical indication will be acon., verat. vir.; ars., sulphur, calc., etc., to follow.

(7.) Beside lesions of the nervous tissues of all the kinds above mentioned, we must particularly name *injuries of the skull*, and of the brain beneath it. Even a stenosis of the foramen magnum has repeatedly been found in the cadavers of the epileptic; likewise, enlargements of the odontoid process. Hæmorrhages or bony spicula pressing on the cortex, cicatricial formations, in the scalp or in the encephalon, or even a small tumor of the meninges, may by their pressure, in time develop the "epileptic change." Even a goitre-like enlargement of the pituitary gland, interfering with the ganglion of Ribes, near by, may, despite Nothnagel's contempt, prove causative.

(8.) *Injuries and diseases of the spinal cord*, like those of other nerve tissues, may cause epilepsy, but this is not very common (epilepsia spinalis). The usual rôle of the spinal cord is that of a mere conductor.

(9.) Urinary disorders, particularly *nocturnal enuresis*, bear their part in epilepsy.

(10.) *Genital affections*—particularly of women, at the menstrual period, may provoke it; and the first coitus has sometimes proved the initiative of the malady, every subsequent repetition inducing a spasm. Phymosis is remarkably associated with this and other neuropathic troubles, sometimes with masturbation.

(11.) *Digestive disorders* may in like manner inaugurate this state—the seizures afterwards recurring without known repetition of the cause. Even a diarrhœa has acted in the same way.

(12.) *Febrile and inflammatory acute diseases* may have a like effect—during or after the attack—as measles, pleurisy.

(13.) Intense physical suffering furnishes its quota of cases, as an original exciting cause.

(14.) Over-exertion and great fatigue have been found capable of the same.

(15.) Simulators of the disease sometimes pay a legitimate penalty, in thus acquiring, after frequent repetition, the genuine malady.

(16.) Women, according to some authorities, and children are more prone to the malady than men, inasmuch as nervous susceptibility is in them more marked. Others deny any special liability for women.

(17.) Defective cortical development of the brain, especially of the anterior lobes, which appear to be inhibitory to the medulla and pons, seems to predispose to epilepsy in some cases.

(18.) Climate is without influence; so are heat and cold.

Other causes might be named and discussed, but they belong more strictly to the department of pathological anatomy.

II.—Exciting Causes of the Epileptic Seizures.—These are, indeed, quite numerous. Whatever can interfere with the nervous equilibrium, with the harmony of the cerebral circulation, cortical and basilar, anterior and posterior, or with the inhibitory nerve-tracts, or the vaso-motor spheres, or with the circulatory, nervous, or nutritive functions of the peripheral organs, external or internal, or with the mental or emotional states, may excite the attack in those who are already subjects of the "epileptic change." Scores of such exciting causes have been enumerated. They are both physical and psychical. Dentition, (the first and the second,) indigestion, disturbance of the bowels, worms; excitement, fright, especially that caused by witnessing a seizure in another person, the more if in a member of one's own family; fever, of the exanthematous type; intense pain, fatigue, privation; such are some of the common exciting causes of the seizure, any of which also will afford us hints of value in the choice of the "similar" drug, *e. g.* Calc., nux v., cina, gels., acon., op., arn., ars., sulph., hyos., bella., silic.

In one of my cases, a young girl, there is dyspepsia, and the aura consists of a goneness in the pit of the stomach. Excitement and any kind of psychical or physical strain may cause a seizure. She formerly had frequent spasms during sleep. I prescribed egg and milk between meals, and particularly at 10 A. M., at bedtime, at any time during the night if awake, and on waking in the morning, since which time she has scarcely had any night par-

oxysms, and the general severity is wanting at the other hours mentioned, which had previously been occasions of special liability. The favorably acting drugs were ignatia, sulphur and calc. carb., given by their precise symptomatic indications. The aura and the seizures are much less intense. Country life has been very serviceable, also. Obviously, the exciting causes must be avoided.

SYMPTOMATOLOGY OF EPILEPSY.—This relates to two separate groups, viz., the paroxysmal and the inter-paroxysmal. In radical treatment the latter affords the best indications, just as we often see in intermittent fever.

We will first consider the symptoms of the epileptic seizure. This is, with exceptions so rare as to be anomalous, characterized by *loss of consciousness*, due, it is conceded, to vaso-motor spasm in the cortical and front brain, proceeding from the vaso-motor centre in the medulla oblongata (or, I would say, primarily from the ganglia of the sympathetic, inasmuch as the medulla is discharged only *after* this stage); which is followed or not by complete abolition or giving way of the inhibitory power of the cortex, and the immediate discharge of the convulsive centres of the pons and medulla, and then the general spasm. If this last do not ensue the attack is known as *epilepsia mitior*, or *petit mal*. If the general spasm follow, it is called *epilepsia gravior*, or *grand mal* or *haut mal*. In those rare and extreme cases in which there is scarcely any intermission in the succession of epileptic phenomena, pathologists technically speak of the "epileptic state"—*etat de mal*—the status epilepticus.

Contrary to the usual habit of writers, I ask attention first to epilepsy in its mildest form, as presenting the very essentials of the malady, afterwards adding the graver symptoms, commonly supposed to be the most characteristic of epilepsy, but which, being often omitted, ought to be regarded as really subordinate.

Epilepsia mitior, vel minor, or the *petit mal* of the French, displays itself in its onset, often, as in the graver form, by an aura, or warning, in the vaso-motor, sensor, or motor sphere, as previously mentioned. Or, the aura may be wanting, just as in other cases. This term, aura, may mislead. It is not a mere warning of the seizure to come, it is strictly a part of the seizure itself—its inception; and in the mildest paroxysms may constitute the whole of

the attack. Many such may intervene between the major paroxysms, and this fact is in no wise uncommon, although not at all constant.

In the *petit mal*, the aura is commonly wanting; but if present, may amount only to dizziness, flashes or darkness or colors before the eyes, and no more; or other aura may appear, as in epilepsia gravior. We shall return to this topic.

Fainting, common dizziness and apoplexy, may be confounded with the petit mal, but this part of the subject belongs to another paper.

The aura, if present, is in the next degree followed by, or without it we may have, all at once, in the midst of whatever the patient is doing, playing the piano, talking, walking or eating, a sudden cessation of consciousness for a few moments, usually with pallor of the surface, and arrest of the voluntary acts; his spoon, in the act of raising it to the mouth, remains in mid-air, or he drops it, or he stands still, or may automatically go forward a pace or two, and then fall; he stares at vacancy, sight and hearing wholly or partially abolished. In a moment, or more, even as much as four to eight minutes, the color and consciousness return, the voluntary acts are resumed at the point where he left off, and he, or at least his friends are aware that he has had "a spell." Afterwards, he feels well, or may be weak, depressed, tired, drowsy, or have headache, forgetfulness, bad humor, and impaired voice.

Between epilepsia mitior and gravior, there exist transition forms. These are, indeed, only the petit mal, plus slight spasmodic symptoms; and are sometimes called "abortive epilepsy." The spasmodic phenomena, following the loss of consciousness, vary in different cases, and are such as these, viz., firm closure of the eyelids, strabismus, facial twitchings, movements of the lips, chewing motions, shutting the jaws firmly, thrusting the tongue to and fro, strained attitude or shaking of the head, slight respiratory spasm, and hence, a degree of cyanosis of the skin. Added to, or instead of such symptoms, there may be local spasms in the limbs, or even of the trunk; thus, certain fingers are rigidly flexed, or stretched; one, or two limbs become stiff, or the parts move rapidly in clonic twitchings; or there is slight general tremor; or the attacks may approach more nearly the major form,

and tonic, followed by clonic convulsions, very slight and short, however, occur; and whereas, in epilepsia gravior, the spasm always ceases before the return of consciousness, the contrary may or may not obtain here. Complete unconsciousness in such mild attacks, is not undoubted, but may be transient, while complete.

In partial spasms, we may probably *localize* the (primary?) action of the vaso-motor filaments of the cerebral sympathetic, by Ferrier's charts of the cortex. The inference to be drawn from this partialism is, that only the strictly related points of the cortex are in vaso-motor spasm, and thus lose inhibitory control of like spots in the convulsive medulla and pons.

"Thalamic epilepsy" (Hammond) consists in hallucinations, plus a momentary loss of consciousness, and seems fairly connected with anatomical lesion of the thalamus opticus.

Other irregular forms will be hereafter mentioned.

Symptomatology of Epilepsia gravior, vel major.—In this, which is the typical form of seizure, the added symptoms, being neither constant nor essential to the diagnosis of epilepsy, are therefore not characteristic of the disease. Nevertheless, in this form the diagnosis is easier, the malady more unmistakable, and as one may say, the "type" is more pronounced, and we always think first of this picture when epilepsy is mentioned.

All those symptoms mentioned in epilepsia mitior now become more interesting. We note the aura, if any, with care; and study also the warnings which, especially after long intermissions, come to view at an earlier date, *i. e.*, days before the paroxysm, or only hours; such as mental oppression, sadness, reticence; or excitement, talkativeness, violence, irritability, distrust, quarreling. With these, or alone, there may be dizziness, confusion, headache. The symptoms are usually more mental than physical; but of the latter, some are peculiar, as dark coloration of the skin, especially of the face and neck; or again, there is unusually profound night-sleep, or heaviness in the limbs, or slight trembling. But even when these warnings occur, they are not always followed by a real seizure, for all may end at that point, for the time.

Again, the immediate warning, the aura, varies in duration, from a single instant to hours; usually half a minute to five minutes, followed by a scream and a fall, or else aborted at that

point; the latter result happening particularly in the interval in cases where real seizures are frequent, as evidences of the continuity of the morbid conditions. When the aura is felt in time it is sometimes possible to ward off the seizure by pressure upon the affected part above, or if motor, by extending the contracted muscles. The epileptic cry likewise varies in tone and loudness, and is very often wanting altogether. It is probably wholly involuntary, spasmodic, and mostly unconscious.

The seizure, fully inaugurated, consists of three parts, viz., 1. From the fall and loss of consciousness to the state of tonic spasm inclusive; 2. The stage of clonic spasm; 3. The after-stage. The separate phenomena of the three stages are thus enumerated, after Nothnagel:

First Stage. — Loss of consciousness, usually instantaneous, sometimes more gradual, but often causing the patient to suffer injury by falling into the fire, or from a height to the ground; dilatation and insensibility of the pupil, or closure of the eyelids, and drawing together of the limbs as a reflex act when cold water is poured upon the body; and later, the general tonic contraction of the muscular system, the eyes appearing fixed, often expressing anger or other emotion; the physiognomy distorted, the jaws set fast, the head drawn backwards or to one side; general opisthotonos, extension of the extremities, intense spreading asunder of the fingers and toes; or flexions of body (emprosthotonos), incurvations of the foot, clenching of fingers and thumbs, which, when forcibly extended, remain so; sometimes semilateral curving of the body, which may alternate to either side; trachelismus (or contraction of the throat muscles), and cyanosis of the skin from pressure on the veins; sometimes laryngismus, sometimes general respiratory spasm and absolute arrest of breathing; and sometimes these more pronounced symptoms do not appear at all, a mere shivering movement of the rigidly extended limbs taking their place. The face is pale, then livid; but this is variable. The fundus oculi, with the ophthalmoscope, appears anæmic, (the dilated and insensible pupil favors the recognition of this, of course). The pulse is contracted, sometimes unchanged, but its examination is difficult, or even impossible. This tonic period, finally, may rarely be omitted, and immediately after the loss of

consciousness the second stage set in; but in the typical seizure the tonic stage lasts, commonly, from a few seconds to one minute, and then ensues the

Second Stage, of clonic spasm, with continued profound unconsciousness; universal twitching, violent jerking, and even floundering, sometimes interrupted by a spell of returning tonicity, or accompanied by tonicity of limited parts. Fractures and dislocations may occur, laceration of muscles, biting of the tongue, breaking of the teeth; foamy, bloody saliva; abdominal rumbling, flatulent and fæcal discharges or tympanites, rarely vomiting; occasionally violent expulsion of urine, even to the height of many feet; ejaculation of semen; respiration spasmodic, or forcible and frequent; venous engorgement; jugulars turgid; eyeballs protruding; face deeply cyanotic, and even ecchymosed, most visibly about the eyelids; some observers speak also of hæmorrhages from the eyes, rectum and vagina, but remarkably enough, cerebral hæmorrhage is extremely rare. The pulse, if possibly taken, is found frequent and fuller than in the tonic period. All these symptoms appear wild and horrible, and seem to last long, but the actual time is only about half a minute to three minutes, as a rule; and then ensues the

Third Stage, or period, the "after-stage." The coma continues, the convulsions wear off, or suddenly cease, and the patient is completely relaxed, perhaps with occasional jerks or general tremor. Then the coma lessens, he opens his eyes, seems to awake as from sleep, looks round him in confusion, closes his eyes again, mutters, groans, sighs, or speaks as if wandering; he responds to irritants; the pupil contracts; the cyanosis subsides; respiration improves, but rales are sometimes heard after severe convulsions, in consequence of the venous engorgement of the pulmonary vessels. The pulse gradually acquires the normal character, although the sphygmograph records an increased elevation of the pulse-wave, and even dicrotism, lasting from half an hour to several hours. The skin becomes soft and moist, even sweaty, and sometimes the other evacuations only now occur. Cutaneous ecchymosis are sometimes seen, and then aid in diagnosis. The ophthalmoscope shows hyperæmia of the fundus oculi, during perhaps, twenty-four hours. But no relics may appear; as Noth-

nagel says, "Thus, a quarter of an hour after the seizure the patient may find himself wholly in his previous condition, sometimes without the slightest bad results. There only remains the deficient recollection of all that happened to him in the moments just past." But such a result is exceptional. Commonly, this third stage lasts longer, and it is apt to merge into a somnolence lasting from half an hour to several, rarely twenty-four hours; and in proportion to the violence of the paroxysm he feels fatigued, unnerved, and bruised all over, with mental depression and irritability; or, on the other hand, if psychical troubles preceded it, the mind is relieved. Nothnagel mentions one case where the somnolence continued two days and more. Other sequelæ may also appear.

The temperature of the body following the paroxysm may be elevated in proportion to its severity, and in "the epileptic state," so-called, its rise is sometimes extreme; usually, however, this change is not notable, since the heat of the nervous and muscular action is quickly eliminated.

The urine passed after the seizures has been found, as we should expect, to contain an increased amount of phosphates and urea, with the total quantity proportionally augmented, the specific gravity remaining as before. Albumen, and sugar, also, have likewise been detected in this urine, and even hyaline casts, resembling those of cirrhotic kidney. Indeed, in every case of epileptiform spasms, one of the first duties of the physician is to diagnosticate, if he cannot eliminate, Bright's disease of the kidney; since the "uræmic explosions," in this malady, often simulate epilepsy.

The return of consciousness, as has been just stated, is often prompt and complete, and the patient seems to be in perfect health; but numerous cases display a different sequence. Disturbances of mind and paralytic manifestations are common.

In the former case, there may be either apathy and stupidity, or, per contra, delirium, which is always exalted and maniacal, with occasional outbursts of what Nothnagel calls "senseless fury," or some form of criminal action, as stealing or murderous assault. Indeed, forensic medicine is cognizant of many terrible crimes perpetrated in epileptic mania.

This epileptic delirium has been known to take the place of the

ordinary seizure. In such cases the alternation of convulsive with maniacal attacks will stamp the latter with the epileptoid character. The same is true of various other nervous disorders. Dizziness, angina pectoris and nocturnal enuresis are here of special interest, since each has been observed in this rôle.

The paralytic sequelæ are, like the delirium and stupidity, transient. The simple fact of permanence would, indeed, exclude the whole case from the sphere of epilepsy proper, and relegate it to that of gross cerebral disease. The same must be said when the symptoms are always and entirely one-sided, although inequality of agitation of the two sides in the convulsion is common enough in epilepsy. Defects of articulation in speech have been found connected with lesions of the medulla, near the centres of the hypoglossal nerve. Functional lesion of the cortex (points 9 and 10, Ferrier,) may also account for these by virtue of anatomical nervous connection between these two regions. Biting the tongue during the paroxysm is considered a positive sign of disease in the medulla.

The transient paralytic symptoms following the seizure may be aphasic, motor, sensory or sentient; the last named takes the form of blindness, deafness, loss of taste, etc. Local spasms, as cramps, intestinal and other, are also observable in the interval of actual convulsions.

As modified forms of epilepsy, (*vide* Hammond), Dr. Hughlings Jackson classes a number of affections, and contends, contrary to most authors, that loss of consciousness is by no means an essential symptom. Indeed, he says: "Epilepsy is not a particular grouping of symptoms occurring occasionally; it is a name for any sort of nervous symptom, or group of symptoms, occurring occasionally from local discharge (of gray nervous matter), whether the discharge puts muscles in movement or not." Of such local discharges of gray matter, he mentions, "1st. A sudden and temporary stench in the nose, with transient unconsciousness; 2d. A sudden and temporary development of blue vision; 3d. Spasm of the right side of the face, with stoppage of speech; 4th. Tingling of the index finger and thumb, followed by spasm of the hand and forearm; 5th. A convulsion, almost immediately universal, with immediate loss of consciousness; 6th. Certain vertiginous attacks.

All these six seizures are alike, in that each results from an occasional and excessive discharge of unstable gray matter." This instability is due, he says, to habitual local mal-nutrition (*vide* Echeverria's observations). He points out two other conditions; first, that the various forms have probably not one identical localization of the unstable gray matter, and would seek the locality of each by the symptoms, etc.; second, that the initial phenomena are oftenest observed in the most used parts, and particularly in the most "educated" members, as the index finger and thumb, the cheek, or the great toe.

The vaso-motor theory of *migraine*, and the opinion of some writers, places this affection among the analogues of epilepsy. Nocturnal enuresis has been similarly viewed by some.

The frequency of the seizures in epilepsy is extremely variable. Thus, the intervals may be a year or more, but Delasiauve relates a case where, in a boy of fifteen years, 2,500 spells occurred in divers degrees of severity in a single month. This case represents the status epilepticus, so-called. It is in such cases that death occurs with elevated temperature resembling that seen at times in the death agony with other diseases. The thermometer may reach 107.6° F. Recovery may, however, occur after marked hyperpyrexia.

Between the paroxysms the patient may appear quite normal, or there may be minor seizures, or attacks of epileptic mania, or of mere dizziness and the like; or there may be habitual and sometimes progressive mental debility, loss of memory, or sadness, even hypochondriasis or melancholia. Imbecility sometimes becomes complete, and the physiognomy degenerates accordingly.

In conclusion, let me again urge upon the homœopathic profession the importance of giving far more weight for therapeutic purposes to the constitutional, the prodromic, and the inter-paroxysmal symptoms, than to those of the paroxysms themselves.

JOHN C. MORGAN, M.D.

Pathology and Pathological Anatomy.—INTRODUCTION.—Although well known in antiquity, and a subject of interest until the present day, its symptomatology bold and well understood, a disease frequent in every community, the subject of careful

research by pathological anatomists, and elaborate experiments by the greatest experimental physiologists of the century, we must write over each hypothesis as to the anatomical basis of epilepsy—not proven. These facts only enhance the interest attaching to the subject. It is true, we are able to say to-day, with a reasonable degree of certainty, that the apparently more essential pathology and pathological anatomy of epilepsy is confined to the medulla and pons, but whether the anatomical changes there found are the basis of the disease or its resultant, still remains in doubt. Even the microscopic appearances which have been heralded as characteristic are stated by Schrœder van der Kolk to be consecutive to the primary manifestations of the disease, and that in the beginning of epilepsy "no lesion is appreciable." It has been located anywhere from the cortex cerebri to the plantar nerves, and has been attributed to almost every conceivable deviation from normal anatomy, and it is a waste of time for me, to-day, to rehearse these conditions which, as we now believe, can have only an exciting causative action, as related to a possible, essential, structural change. Most of our monographs, I find, teem with matter of such character, important certainly, but giving no light upon the subject in question, to wit: What are the constantly recurring changes peculiar to epilepsy? I cannot hesitate to say in answer to this question, that after careful search I am not able to point to any such changes. Those so frequently found in the medulla and pons, being entirely absent in some instances of fully developed paroxysms, and present in other diseases having no similarity to epilepsy. In view of these facts we must still class epilepsy with the functional diseases, using the term in the sense adopted by modern medicine. It is not improbable that we shall yet, with increased observations and improved methods, discover anatomical alterations in the earliest stage of the disease. The application of the same methods which have enabled us to determine a structure in cells as well as, probably, the origin of the corpuscular elements of the blood will undoubtedly, with similar improved means of research, enable us to clear up many obscure points in pathological histology.

Pathological Anatomy.—Although in very many instances no lesion is discoverable, in a very considerable proportion a great

variety of macroscopic conditions, most varied in character, are found. The large majority are undoubtedly secondary; many possess no intimate relation to the disease; and none are proven to be uniformly primary and constant. There has been no lack of statements as to its anatomical seat. Deviations from the normal in the structure of the skull, which may be thickened and sclerosed, or possessing irregularities upon its inner surface, stenosis of the foramen magnum, a variety of changes in the meninges, asymmetry of the cerebral lobes, atrophy of one of the hippocampi, neoplasms, etc., etc., with many alterations in the peripheral nervous system, have all had their advocates.

Our knowledge of the microscopical appearances is gained principally from the researches of Schrœder van der Kolk, Echeverria and L. Meyer. Their observations agree quite closely. The most prominent are the vascular changes which consist in dilated capillaries with thickened, fatty walls, sclerosis with obliteration of many of the smaller vessels, many of which possess aneurismal dilatations. According to Schrœder these dilatations lie chiefly in the roots of the hypoglossus and vagus, more in the former when the tongue is bitten in the seizure; more in the latter when it is not.

Pigmentation of the ganglion cells, particularly in the nuclei of the vagus and hypoglossus, is the only authenticated cellular alteration. The tubules exhibit no change. Echeverria found the ganglia of the cervical sympathetic regularly presenting hyperplastic connective, with irregular cells which were the seat of granular degeneration and pigmentation. Adventitious matter was found in the form of an albuminous exudation and at times a small-celled infiltration. While these changes are found in the medulla and pons, it is especially in the bulb and its immediate neighborhood that they have been more frequently noticed. They are all, however, found in some cases in the cerebrum, cerebellum and basal ganglia.

Pathology.—The localization of the pathology of epilepsy by the ancients was very indefinite. From the date of the rejection of the belief in unclean spirits, to which it was attributed, up to the time of Bouchet, it was said to be in the brain. No more positive localization was established until the commencement of

the memorable experiments of Brown-Sequard, which have now been continued for twenty-five years with such valuable results, and which paved the way to a more thorough knowledge of the patho-physiology of the cerebro-spinal system, especially in the region which we now know to be especially related to epilepsy. These experiments, to which have been added the valuable observations of Kussmaul, Schrœder van der Kolk, Echeverria, Reynolds and others, enable us, as we have seen in the consideration of its morbid anatomy, to point with great certainty to the regional seat of epilepsy. In spite of the apparent certainty of this conclusion, an attempt has been made of late to again extend the anatomical seat of the disease more generally over the cerebro-spinal system, but I think without success. Avoiding too much refinement in definition, I believe the following proposition expresses our present knowledge of the pathology of epilepsy.

Epilepsy is a disease, *per se*, of the central nervous system, having its seat in the medulla and pons, with, in all instances, an increased irritability of the reflex centres situated in these parts. This irritability is due to changes, probably nutritive or molecular in character, of these gray ganglionic centres, and, so far as we are at present able to determine, there is no macro- or micro-scopical changes which are constant in appearance and can therefore be considered essential; and that heredity, as well as certain injurious stimulations of the nervous centres, especially at certain periods of life, favor its development.

According to Nothnagel, if we wish to arrive at correct conclusions in regard to epilepsy, we must "base our inquiries on only typical cases." "As in the study of malarial fevers one would not begin with masked cases, or such as are accompanied by severe cerebral symptoms and pigmentary embolism, but with the ordinary forms, so in epilepsy should we follow the same course," for we should bear in mind that all cases are not typical and many are complicated by associated nervous conditions. Very extensive experimentation has been carried on by a large number of observers to determine the general anatomical starting point and the pathology of the seizures. Brown-Sequard has been especially mentioned as deserving of credit, although he has had many co-laborers. "In determining the character of epilepsy, the real

emphasis should be laid upon the paroxysms, for the simple reason that quite often no symptoms whatever are present during the interval." If the seizures are the principal events, often alone betraying the epilepsy, then it can only be logical for us to locate the real seat of the disease in those parts of the nervous system from which the paroxysms take their origin. These experiments are too numerous and the narration of them too tedious to report them at all fully, for a paper of this length and character. In short, they have consisted of a series of mechanical injuries inflicted upon animals, especially Guinea pigs. These injuries, consisting of sections, punctures, and other forms of injury of various portions of the nervous system, particularly the medulla, cerebral peduncles, corpora quadrigemina, upper portion of the spinal cord and various nerves, sciatic, popliteal, etc. They were all quite uniformly followed by nervous excitement, local twitchings of muscles, and finally, completely developed epileptic paroxysms in from three to six weeks succeeding the injury. The young of these animals through several generations presented the same form of seizures. Even injured animals who did not become epileptic gave birth to young which became so. These seizures have continued for several years. Westphal and Hitzig have, the former by blows upon the cranium, the latter by puncture of the cortex cerebri, produced epileptic seizures.

Kussmaul, acting upon the remarks of Marshall Hall, who compared the convulsions of hæmorrhage with epilepsy, demonstrated that epileptic convulsions could be produced by suddenly obstructing the flow of blood by compression or ligation of the four great arterial trunks leading to the head or by bleeding, and that the symptoms quickly disappeared upon the removal of the obstruction. Ligation of the jugular veins was followed by no such result.

Krauspe and Donders each showed experimentally and by different methods, the relation of cerebral anæmia to the epileptic seizure.

Kussmaul, Tenner and Nothnagel have shown by elaborate experiments that the spinal cord serves only as a conductor in convulsions produced by bleeding, and that "no convulsive motions starting from it can be excited by anæmia." This does not,

however, prove the absence of spinal implication in epilepsy, for Brown-Sequard has shown experimentally that it is probable that epileptic convulsions may originate alone from the spinal cord, and he has designated such as epilepsia spinalis. To determine the anatomical region in which the epileptic seizure originates, many experiments have been carried out by Brown-Sequard, Schiff, Kussmaul, Tenner and Nothnagel. They agree in locating it in the medulla and pons, and Nothnagel has shown the "convulsion centre," *i. e.*, that circumscribed spot from which the whole body of voluntary muscles may be thrown into tonic or clonic spasms through reflex action, to be located in the pons. This constitutes a résumé of the more important results of experimentation. Three apparent truths of especial importance grow out of them taken in connection with our knowledge of its pathological anatomy: 1st. Epileptic convulsions may be excited by a variety of injuries of the nervous system, both central and peripheral. 2d. That the anatomical seat of epilepsy is probably the medulla and pons. 3d. That cerebral anæmia bears a close relation to the epileptic seizure.

Says Dr. J. Russell Reynolds: "Bearing in mind all the facts of epilepsy, and proceeding to their interpretation by the aid of physiology, we arrive at the following conclusions:

1st. That the seat of primary derangement is the medulla oblongata, upper portion of the spinal cord, and vaso-motor system of nerves.

2d. That the derangement consists in an increased and perverted readiness of action in these organs; the result of such action being the induction of spasm in the contractile fibres of the vessels supplying the brain, and in those of the muscles of the face, pharynx, larynx, respiratory apparatus, and limbs generally. By contraction of the vessels, the brain is deprived of blood, and consciousness is arrested; the face is, or may be, deprived of blood, and there is pallor; by contraction of the muscles mentioned, there is arrest of respiration, the chest walls are fixed, and the other phenomena of the first stage are brought about.

3d. That the arrest of breathing leads to the special convulsions of asphyxia, and that the amount of these is in direct proportion to the perfection and continuance of the asphyxia.

4th. That the subsequent phenomena are these of poisoned blood; *i. e.*, of blood poisoned by the retention of the carbonic acid, and altered by the absence of a due amount of oxygen.

5th. That the primary nutrition change which is the starting point of epilepsy may exist alone, and epilepsy be an idiopathic disease, *i. e.*, a *morbus per se*.

6th. That this change may be transmitted hereditarily.

7th. That it may be induced by conditions acting upon the nervous centres directly, such as mechanical injuries, overwork, insolation, emotional disturbances, excessive venery, etc.

8th. That the nutrition change of epilepsy may be a part of some general metamorphosis, such as that present in the several cachexiæ, rheumatism, gout, syphilis, scrofula, and the like; and further, that it may often be associated with change in the cortical substance of the hemispheres of the brain.

9th. That it may be induced by some unknown circumstances determining a relative excess of change in the medulla, during the general excess and perversion of organic change occurring at the periods of puberty, of pregnancy, and of dentition.

10th. That it may be due to diseased action extending from contiguous portions of the nervous centres or their appendages.

11th. That the so-called epileptic aura is a condition of sensation or of motion dependent upon some change in the central nervous system; and is, like the paroxysm, a peripheral expression of the disease and not its cause."

This summary of our present knowledge, from J. Russell Reynolds' monograph, expresses clearly what is at present worthy of confidence, although exceptions are taken to some of his points by authors of note.

Dr. Hammond accepts these conclusions of Reynolds as correct in the main, but believes, evidently founding his belief upon the researches of Brown-Sequard, that the disease is frequently due to irritation of the sympathetic nervous system, as well as the upper portion of the spinal cord. He also believes that the spasm of the cerebral vessels with the consequent anæmia is not the invariable condition exciting the paroxysm, but that the primary state is often one of vascular paralysis and consequent hyperæmia, and considers that experiment has conclusively shown that either

cerebral anæmia or hyperæmia may cause epileptiform convulsions, providing the medulla be involved; he would therefore classify epilepsy as anæmic and hyperæmic, and supports the theory by the facts that at times cases are improved by remedies which increase the amount of blood in the brain; others by those which diminish; also the possibility of ophthalmoscopic diagnosis of the two classes.

Dr. J. S. Jewell, of Chicago, in a lecture upon the pathology of epilepsy, ascribes the primary disturbance to the vaso-motor system of nerves, claiming that the spasm of the cerebral vessels which produces the anæmic condition is immediately followed by paralysis resulting in congestion. He believes the congestion to be principally located in the medulla, and that it is the congestion of this region which gives rise to the convulsive movements.

The most remarkable, perhaps, of the more recent communications upon this subject is by Dr. Hughlings Jackson, published in the London *Lancet*, and which will repay careful perusal. The pivotal point in the paper is the statement that an epileptic convulsion is an abnormally rapid discharge of gray matter from some portion of the brain. That there exists a general state of malnutrition of this portion of the nervous substance,—a want of uniformity in the nutritive process; that this state exists in various degrees in different regions and that a convulsion is the discharge of a part which has been for the longest period in a state of malnutrition. According to this theory epilepsy is not a name for a group of symptoms, chiefly convulsive, with unconsciousness, but a designation of a certain pathological condition, the expression of which may be in the six following forms, which are the six forms of epilepsy discribed by Dr. Jackson:

(1.) A sudden and temporary stench in the nose, with transient unconsciousness.

(2.) A sudden and temporary development of blue vision.

(3.) Spasm of the right side of the face, with stoppage of speech.

(4.) Tingling of the index finger and thumb, followed by spasm of the hand and forearm.

(5.) A convulsion almost immediately universal, with immediate loss of consciousness.

(6.) Certain vertiginous attacks.

Dr. Jackson states that each of these forms is the result of a discharging lesion, the anatomical location of which is different for each form, and that just as in cerebral hæmorrhage and other brain lesions we locate the seat of the pathological change, so in epilepsy should we endeavor by the symptoms to locate the discharging lesion.

Little has been accomplished, as yet, in this proposed localization. A most interesting communication upon this subject, and the only one with which I am acquainted, will be found in the *Archives of Medicine*, for August, 1880, page 1, from the pen of Dr. Hammond. He there describes a number of cases to which he gives the name of "Thalamic Epilepsy." After detailing at considerable length three cases that have fallen under his observation, he makes the following remarks: "That these are instances of epilepsy I think will not be questioned; that they possess peculiar features will be ready admitted. The form of epilepsy nearest to this hitherto described, consists of those paroxysms in which the patient has hallucinations, usually of sight, and then immediately passes into an ordinary seizure. Many such cases have been reported, and quite a large number have occurred in my practice." "The title of 'Thalamic Epilepsy' which I have given to this paper sufficiently indicates my view of the matter. The thalami optici if centrally divided antero-posteriorly will be seen to have imbedded in their substance four ganglionic masses. Of these, three are arranged along the superior surface of each thalamus and from their position may be designated the anterior, middle and posterior, while the other more deeply placed, may be called the central. Luys, who has studied the formation of the thalami optici with great thoroughness, designates these nuclei, from alleged anatomical and physiological relations, respectively 'the *olfactive*, the *optic*, the *acoustic*, and the *sensitive* or ganglion of general sensibility. They have also been regarded as especially the centres for vision, as presiding over the movements of the upper extremities and again as influencing voluntary motion.'" Dr. Hammond then cites from morbid anatomy at considerable length in support of these views, and closes with the two following deductions:

1. That there is a form of epilepsy, the phenomena of which are simply hallucinations and loss of consciousness.

2. That the morbid anatomical basis of this type is seated in the optic thalamus.

W. C. Goodno, M.D.

Diagnosis.—The diagnosis of a fully developed epilepsy as typified in the epilepsia gravior presents but few difficulties; the sudden fall accompanied by deathly paleness of the face, the tonic spasm preceded or not by an aura, the speedy sequence of clonic spasm involving one or both sides of the body, or perhaps only a single limb or portion of the body, usually accompanied by dusky redness of the face; the subsequent coma, and terminal somnolence, all, if of repeated occurrence and not traceable to any organic disease of the brain or spinal cord, or connected with organic lesion of the kidneys, point unmistakably to this form of disease. It is, however, not always our fortune to have cases in which the symptoms are so clearly defined as to give unquestionable evidence as to the character of the disease, while on the other hand a number of other affections present sufficient similarity to lead the unwary into error.

It may also happen that attacks of epilepsia gravior may be repeated many times before being fully recognized. Such instances may occur where the attacks take place only at night. In these cases we may have no evidence save an incontinence of urine, occurring only on the night of attack, followed in the morning by a sense of fatigue or languor; or we may have more or less injury to the tongue from being bitten during the convulsion. Where the patient makes no complaint this symptom may be suggested by the bloody saliva on the bed linen. In some cases we may discover petechial eruptions on the face, particularly about the outer angles of the eyes. With each such additional symptom the probability of the diagnosis increases, so that combined it may be considered as almost a certainty.

In all cases it is desirable that the patient be carefully watched in order that the attack when occurring may be accurately observed and its character fully defined.

Other important, though rare, conditions leading to a suspicion

of the existence of epilepsy are injuries, such as bruises, sprains or fractures, received during sleep.

As already suggested, the diagnosis of epilepsy is not always readily determined, partly from the above mentioned causes and partly from the fact that other affections may, through their spasmodic symptoms, show misleading resemblance. Among such affections, that one which will most frequently require differentiation, is hysteria in its convulsive form, yet even here a careful study of the totality of the symptoms will enable us to make a positive diagnosis with comparative ease save in hysterical cases complicating epilepsy. The following comparative table of symptoms will greatly assist in the differentiation:

Epilepsy.	Hysteria.
Begins with sudden fall, usually without premonition and consequently without exercise of caution.*	If fall occurs it is preceded by more or less nervous excitement and evidence of coming attack.†
Sudden and complete loss of consciousness occurring with the fall which ushers in the paroxysm.	Consciousness gradually and only partially lost, or only apparent unconsciousness which is broken by emotional expressions.
Face first livid, then flushed.	Face usually flushed or color unchanged.
Eyelids half closed, balls rolling. Expression meaningless.	Eyelids closed, balls fixed, or patient "looks about" more or less understandingly.
Frothy or bloody saliva.	None.
Biting of tongue, common, with grinding of teeth.	Neither.
Distortion of countenance often hideous.	Not marked, or wanting.
No evidence of emotion or feeling.	Emotional symptoms marked by sighing, laughing, sobbing, etc.
Convulsions more marked on one side and more tonic than clonic.	Convulsions usually affect both sides equally, more often clonic; not so regular as in epilepsy, and showing a marked tendency to odd and unusual positions, also rolling and tossing from place to place.
Paroxysms of short duration; from three to ten minutes.	Paroxysms usually of longer duration; may last many minutes.

*Sometimes preceded by an aura which is of short duration, and usually immediately prior to the paroxysm.

†Globus hystericus may be continuous hours or days before the outbreak.

Paroxysm followed by heavy half comatose sleep; and often succeeded by headache and malaise, with more or less clouding of intellect.	Paroxysm may be followed by nervously restless sleep, or by insomnia and depression of spirits.
No especial connection with uterine disturbance, although often occurring at menstrual period.	Often related to affections of the uterus, or ovaries, or of menstruation.
Respiration impeded; asphyxia.	Respiration more or less irregular, interrupted by sobbing or sighing.
Paroxysm often at night and during sleep.	Never during sleep.
Occurs at all ages and in both sexes, and in persons who otherwise may have marked command over the emotions.	Occurs usually in young women who present other well marked hysterical symptoms.

When hysterical convulsions are very severe and follow one another rapidly, they may present some resemblance to the "status epilepticus" described by Bourneville as being characterized by 1st. Frequent repetition of the fits which may become so continuous as to scarcely show any intermission. 2d. By variable degrees of collapse which may reach even a profound coma, devoid of all consciousness. 3d. More or less hemiplegic condition developing after variable duration of other symptoms. 4th. Increased frequency of pulse and respiration. 5th. Considerable elevation of temperature, which persists in the brief intervals of the fits.

As each fit presents more or less clearly the peculiarities of the single epileptic seizure, we may readily determine the nature of the attack by carefully applying the foregoing comparison. In addition to which we have the rise of temperature which is not found in purely emotional hysteria.

Occasionally we find a complication of epilepsy with hysteria, in which case the exercise of much discretion is required for the diagnosis.

More rarely will we be called upon to decide as to the nature of epileptiform convulsions dependent upon cirrhosis of the kidneys. Such uræmic convulsions, resembling closely the epileptic fit, may occur suddenly in persons who to that time had been in the enjoyment of apparent good health. There will, however, in the majority of cases be but little difficulty in arriving at the true diagnosis, as, on careful investigation, we will

learn of the habitual pallor of countenance together with symptoms of œdema of the eyelids or of the ankles, while an examination of the urine will usually show the presence of albumen and casts.

Again, in such cases hypertrophy of the heart (left ventricle) usually exists, this again giving rise to increased arterial tension, readily detected by the touch, in the increased resistance to pressure, of the radial pulse, while the sphygmograph shows a marked secondary wave, and a small dicrotic wave occurring high up in the diastolic part of the tracing.

Further, the ophthalmoscope may be of service in revealing lesions of the retina peculiar to Bright's disease, *i. e.*, whitish-pearly spots of exudation near the macula lutea, also larger patches with smaller glistening spots elsewhere. Hæmorrhagic spots are not uncommon in Bright's disease, and though not especially indicative of it, being found also in cerebral disease, their presence demands an examination of the urine for the detection of albumen and casts.

Epilepsy and Eclampsia Infantum.—The symptomatology alone will not enable us to differentiate with certainty these two forms of convulsive affections. But if we bear in mind the fact that in epilepsy the convulsions usually recur at more or less irregular intervals which are not marked by any obvious exciting cause, while eclampsia infantum is usually associated with some discoverable and sufficient exciting cause, such as dentition, helminthiasis, gastric irritation or some acute febrile disease, a mistake can scarcely be made. Still we must not forget that eclampsia infantum may apparently merge into the epileptic form of convulsions.

Epileptic seizures may occur as a symptom of cerebral syphilis (gummata, degenerative changes of the vessels, etc.). This form must be carefully distinguished from idiopathic epilepsy. In order to accomplish this the history of the case must be traced through all its changes. Such symptoms as violent headaches, worse at night, ptosis, pupillary disturbances, paresis of various parts of the body, would lead to a suspicion of syphilis. Optic neuritis may be present. The convulsions accompanying syphilitic disorders are usually at first unilateral or may be confined to

one limb, though not unfrequently the convulsions may become general and assume the type of epilepsia gravior. Paretic conditions are prone to increase even to complete paralysis on frequent repetition of the convulsions. Yet if long intervals of freedom from convulsions should occur the paralysis usually shows a tendency to slight improvement.

Epilepsia Mitior.—This form of the disease presents greater difficulty of diagnosis than epilepsia gravior owing to the often extremely indistinct relationship of the symptoms to those of a typical attack of epilepsy. Frequently the only symptom to excite our suspicion will be but a sudden, momentary, yet complete vanishing of thought—a momentary blank—after which the patient will proceed with the thread of a conversation, totally unconscious of the attack. A slight vertigo or an apparently simple syncope may constitute the whole discoverable disease. In some cases the loss of consciousness may continue longer, in which case the patient may fall. Though these attacks usually come on suddenly, various auræ are also at times noticed, the most common of these being a sensation of dizziness, or flashes of light, or darkness before the eyes. Such symptoms may exist months or even years without the slightest suspicion of their real character, still we should not fall into the opposite error of supposing every such case to be one of epileptic origin, as other causes, either emotional, circulatory or gastric, may give rise to similar conditions.

On close inquiry in cases of epileptic nature we may learn of the existence of an aura, or that during the attack slight incoherent mutterings, or perhaps a scarcely perceptible rigidity, or slight convulsive twitchings have been observed. In all such cases we are strengthened in our diagnosis if the patient presents a neuropathic family history, or if we discover other predisposing or exciting cause, as reflex irritation from affections of the genital organs. In conclusion we may add, that the paroxysmal recurrence of any group of symptoms related especially to the nervous system, demands our most earnest consideration.

Epilepsia mitior may possibly be mistaken for an attack of syncope, yet the diagnosis may usually be readily made if we take into consideration all the symptoms.

The more or less gradual form of the attack, a slight oppression with disposition to yawn, a gradual loss of power of comprehension, the face becoming pale meanwhile, the dizziness and accompanying feeling of general relaxation, are all so different from the sudden loss of consciousness, the sudden fall and tonic spasm, the initial condition of epilepsy, that an error can scarcely be made. Again, the arterial tension in epilepsy is not materially changed, while in the fainting fit the pulse is small and of diminished tension. The respiration, which at the beginning of the attack of syncope, was oppressed, usually becomes quiet during the same; while in epilepsy labored breathing, or at least impeded respiration is the rule.

These few points will probably furnish all that is required to prevent error of diagnosis even in cases of syncope with convulsions, as occasionally found following profuse metrorrhagia. Here the known cause and the concomitant conditions will usually be sufficient to make the diagnosis clear.

Irregular Epilepsy.—This form of the disease is extremely difficult of detection save in cases affected at intervals by clearly developed attacks of epilepsia gravior or mitior.

Great latitude has been indulged in by different authors in relation to this form of epilepsy, some even ascribing an epileptic origin to many cases of kleptomania, pyromania, and dipsomania. The feature on which most stress is laid being the paroxysmal character of the attacks and the lack of cognizance of surroundings during the paroxysm. Such periodically returning attacks of mental disturbance being sometimes found in patients suffering from epilepsy, the mental affection seemingly taking the place of the ordinary fit, gives ground for suspecting that similar periodical attacks of peculiar mental states, though occurring in persons who have never suffered from developed epilepsy, may arise from pathological changes similar to those upon which epilepsy is supposed to depend.

Epileptoid States.—Regarding the epileptoid states not coming within the scope of any of the preceding forms, the following points given by Nothnagel will suffice: "Those states should be regarded as epileptoid, *i. e.*, as caused by a central epileptic change in which symptoms show themselves paroxysmally, for

the development of which the same physiological processes according to our present knowledge should, or at any rate may be assumed, as produce (when developed in greater intensity or extent) the usual epileptic attacks. Furthermore, it should be kept clearly in mind that in genuine epilepsy, these paroxysms constitute the principal features of the disease, while the symptoms of the interval, on the contrary, stand in the background, or are so little pronounced that no other nervous or mental affection could, with any probability be made out of them. The only exception would be when they can be shown to be in some sort a consequence of epilepsy. The certainty as to whether the case be one of genuine epilepsy or not, is to be gathered from the occurrence sooner or later of real paroxysms in place of, or alternating with these questionable seizures."

Feigned Epilepsy.—If the malingerer has carefully studied the symptoms of the disease it may become a matter of some difficulty to discover the deception, yet a thorough analysis of the symptoms will in general enable us to decide to a certainty. Though no one symptom, taken alone, can be said to occur in all cases, the totality of the condition is so difficult of imitation that a mistake need scarcely occur. Among the symptoms most difficult of imitation may be mentioned the characteristic sudden fall without sign of premonition or caution, at which time sensation is totally abolished, in almost all cases, even though but momentarily. The incontractibility of the pupil occurring during a seizure, though not a constant symptom, cannot be feigned. The malingerer may generally be detected on the local irritation of sensitive parts, as cornea, etc.; or by the sudden and unexpected application of powerful stimuli such as an electric shock, hot or very cold water, cautery, etc., etc.

Prognosis.—We find such a paucity of statistics relative to the results of the homœopathic treatment of this affection that it would be impossible to give even a proximate percentage of cures; nevertheless, from results attained in the treatment of the various forms of nervous diseases, we might venture the expression of a belief that the prognosis under homœopathic medication must be much more encouraging than is that usually accepted as correct by the allopathic school.

The following, culled from Nothnagel, Reynolds and others, presents the generally accepted views upon this subject. Hereditary taint is of unfavorable omen though not necessarily indicative of incurability; whereas an early commencement of the disease when still recent, renders the prognosis favorable. Herpin, however, regards those cases which begin after the fiftieth year as having still better prospect. When the disease has been established for some time and is recognized as an idiopatic affection the prognosis is unfortunately very unfavorable as regards perfect and permanent cure. All authorities lay great stress upon the importance of duration as a factor in the prognosis; the longer it has lasted the greater is the difficulty and improbability of cure. Herpin, however, says that "the duration in itself does not make the prognosis worse, but the number of seizures in a given time; that is to say, the possibility of cure is greater when the epileptic subject has experienced twelve attacks in the year than when there have been a hundred and twenty. If there have been more than five hundred seizures the prospect for recovery is equal to nothing."

Some writers regard those cases in which the intervals between the attacks are much prolonged as less amenable to treatment than are those which exhibit a more rapid recurrence, yet Nothnagel regards such long intervals as favorable.

Some of the most obstinate cases are those in which the general health is good; some of the most tractable are those in which there is a disturbance which may be corrected; the more peripheric such disturbance, if of causal nature, the greater the probability of cure. Central causes render the prognosis very unfavorable. Mental failure is of evil augury, but not to so high a degree as has been supposed. Regarding the effects upon the mental state of the patient, Reynolds says: "Hereditary taint is without influence; the female sex is of unfavorable omen; the late commencement of the disease is a predisponent to intellectual failure; mere duration is without influence; an impaired state of general health is of good rather than evil import; mere number of attacks is of no moment; rapid recurrence of seizures is indicative of danger; the attacks of *le petit mal* are more injurious than are the severer paroxysms.

The danger to life is somewhat remote and need scarcely be entertained. It is exceedingly rare for an epileptic to be killed by, or die in, one of his attacks."

In this connection I would remark that in cases suffering from valvular lesions of the heart the danger, through the circulatory disturbance, is greatly increased, as the writer witnessed in one case, death occurring during a paroxysm, though with symptoms directly referable to the imperfect action of the heart.

"Van der Kolk has shown that the danger to life is greater in those in which the tongue is not bitten, but I have no observations to prove either the correctness or incorrectness of this opinion." (Reynolds' System of Medicine, Vol. III.)

Finally, the character of the seizures whether epilepsia gravior or mitior, does not materially alter the prognosis with reference to curability.

A. Korndœrfer, M.D.

General Treatment.—Under general treatment I will briefly refer, first, to medicines that have been more or less successfully employed singly by the old school. These comprise aconite, ammonio-sulphate of copper, animal oil of Dippel, arsenic, asafœtida, atropia, belladonna, bromide of potash, bromide of sodium, castoreum, conium, cotyledon umbilicus, digitalis, ergot, gratiola, hyoscyamus, indian hemp, iron, musk, nitrate of silver, oil of turpentine, opium, oxide of silver, oxide of zinc, phosphorus, quinia, selinum palustre, squill, stramonium, strychnia, valerian, wormwood and zinc. At the present day little reliance is placed on any of these drugs except the bromides, and even these are beginning to be viewed with mistrust, for often the bromide of potash is given until anæsthesia of the fauces is produced before the paroxysms subside, or until bromism results, which Pepper declares is "a state of depression worse than the epilepsy." Some of the old school practitioners try to individualize in administering the above mentioned drugs, but in a very crude fashion only, as for instance, bromide of potash for day cases, iron for anæmic women, copper for adults, zinc for children, etc.

Such measures as the ice-bag applied along the spine, dry cupping, amyl nitrite and chloroform inhalations, morphia injec-

tions at bedtime to prevent nocturnal attacks, etc., have been tried and almost invariably without the least benefit.

Electricity, advised by some practitioners, is considered almost useless by all electro-therapeutists of skill; they feel warranted in claiming for even the constant galvanic current only slight benefit.

Resort to such violent and stupid measures as some old-school authorities recommend in their poverty of resources for cure, is positively criminal. I refer to the ligation of the carotids, tracheotomy, clitoridectomy, amputations, etc., operations which have been performed by our "scientific" brethren.

Causal Treatment.—First and foremost, after very thorough investigation of the etiological relations and an examination of the patient, and I may here say, no attempt to treat a case of epilepsy should ever be made unless thoroughly examined, comes, if possible, a causal treatment. If this is not possible, or if the object is not attained, wise hygienic and dietetic treatment should be instituted, it being understood, of course, that during the causal treatment, dietetic and other measures must have already been partly brought into use.

Primarily, the causal treatment claims consideration in cases where peripheral lesions are starting points. The extirpation of a cicatrix, the removal of a bullet, the cutting out of some tumor pressing on a nerve, the opening of an abscess, the extraction of crowding or carious teeth, etc., have been followed by the cure of epilepsy.

Examine cases for source of irritation in abdomen, especially if the aura proceeds thence. Here we frequently find the starting point of the disease. The intestines and visceral organs reflect more strongly on the brain than any other region of the body. Post-mortem examinations of epileptics have revealed strictured and dilated or sacculated colon. The removal of worms infesting the intestines, and the replacing of a prolapsed gravid uterus, have resulted in curing epilepsy.

If a careful examination reveals a depression or scar on the skull, other means failing, no time should be lost to give the patient the benefit of trephining, which, when indicated, is speedily followed by good results.

Hygienic Treatment.—About hygienic measures too much

cannot be said. These faithfully carried out, and a resort to the truly homœopathic remedy give us by far the best measure of success. The life of the epileptic must be temperate and well regulated. Sometimes it becomes necessary to change the individual's whole mode of life. Men of sedentary habits, book-keepers for instance, are frequently benefited and cured by farm life. Those who have been hard worked need rest, not to an extent to be called laziness, but rest implying quiet exercise of mental faculties, with very moderate exercise in the open air. Whatever exercise is used, including gymnastics, it must never be carried to a sense of fatigue. Some cases have been completely cured by rest in bed, conjoined with a most rigid diet until the system is purified by a change in the molecular and chemical condition of the body. In cases of anæmia with insufficient body weight, patients complain of cold hands and feet, the pulse is weak, tongue is coated and bowels are irregular, the urine is loaded with phosphates, an evidence that the food is not properly assimilated; such should be placed in bed, put on a rigid milk diet, beginning with small quantities, gradually increasing until three quarts per diem are taken.

Sponge baths carefully taken are beneficial, whilst douches upon the head, or plunge baths, are frequently decidedly injurious. Sea baths are not very efficient, besides there is danger of drowning if patient has *le grand mal.* In *le petit mal,* on the contrary, I have seen excellent results. After a few days' sojourn at the sea-side, without bathing, then a stay of several weeks with a surf bath daily, spasms of milder epilepsy lessened after first bath from fifteen in twenty-four hours to six; after second bath from six in twenty-four hours to two; after third bath none. Too long a residence at the sea shore must be avoided, not only in epilepsy, but in other diseases as well, my experience having been that after the molecular and chemical conditions of the body have changed, as they undoubtedly must in the stimulating salt air, to a point where benefit is plainly visible, it seems as if these changes went on until positive injury to the tissues results, and the case is then decidedly worse off than before.

Epileptics should never go to bed with cold feet, nor run the risk of becoming cold in the night from insufficient bed clothing.

Sleeping on a good hair mattress is to be advised, and the feather bed entirely abandoned, even in cold weather. The night dress can be of a warm texture but light in weight, and proper covering, very soft, wooly blankets are the best, ensures warmth enough. It is a good plan to advise patients subject to nocturnal paroxysms to sleep with the head and shoulders well raised, not by feather pillows, but by a bed-rest, or some contrivance placed under the upper half of the mattress. Attacks are thus prevented. While on the bed, a word may be said as to sexual intercourse. Epileptics should be very cautious in engaging in *nocturna bella;* in some cases indeed coitus must be strictly interdicted.

Diet.—As to diet it is to be said that the milk cure already spoken of is not applicable to all cases for a long continued time, but for several weeks many cases will be benefited by using nothing but three to four pints of good, rich milk daily. Then other articles of food may be added gradually until a permanent diet of milk, two eggs, one vegetable, a small portion of meat (roast or broiled, never fried), bread and butter, and one fruit is taken daily, the hours for eating being observed with great regularity. Coffee, tea, and alcoholic drinks and the after dinner smoke must be strictly forbidden, and I need hardly say, bolting of food, which epileptics are so accustomed to, must be carefully guarded against. Inquiry into the abuse of certain vicious articles eaten by children; cases where sugar, salt, ginger, cheese, etc., have been taken in large quantities, have improved after a discontinuance of the use of the abused articles.

Treatment of the Seizure.—Of the treatment of the seizure I will say, that to ward off a paroxysm is rarely practicable; it is wholly impossible when the attack breaks out suddenly. If considerable time elapse prior to loss of consciousness, and when the premonitions precede the seizure for some length of time, a full paroxysm may sometimes be prevented by a firm ligation of the extremity in which a distinct aura shows itself. If the paroxysm is ushered in by a flexion of the fingers, an attempt may be made to bring them out by rapid and forcible action into a position of hyper-extension. Measures must, of course, be taken to prevent infliction of injury. Biting of the tongue cannot always be prevented. In epileptics who wear false teeth care must be taken.

They should never wear them at night in bed. This precaution became impressed on me after I had been called to a case not long since. It was that of a lady who had a seizure in church. Her upper set of teeth had migrated, and it was with considerable difficulty that I succeeded in removing them from the gullet.

In the comatose stage nothing is to be done; no matter how long it lasts, let the patient sleep. I have allowed a patient to sleep thirty-six consecutive hours.

When paroxysms are very violent, or when they follow each other in rapid succession, examine your patient carefully, and apply remedies against any threatening œdema of the lungs.

Immediately after a paroxysm, it is necessary to examine the patient carefully to detect some possible injury he may have sustained. Not long since, a young man whom I was called to see, had had a seizure at 2 A. M. The parents observed, after getting up time, that his right arm seemed injured, and a bruise of the right eye was noticed, the patient having fallen out of bed during the attack. At 9 A. M. he had another seizure, which was extremely violent, and after a return to consciousness he complained of an inability to use his right arm. I was sent for at 4 P. M., and found a sub-glenoid luxation of the right humerus. By this time the parts were very much swollen and painful, but I succeeded, after careful manipulation, being compelled to convert the sub-glenoid variety of shoulder dislocation to a sub-coracoid, in replacing the head of the humerus. There must have been considerable laceration of the capsular ligament, but, under arnica[3], internally, and a Velpeau dressing he made a good recovery. Such a case as this convinces one that to employ general treatment to the very best advantage, an examination of a most careful character is absolutely necessary, not only before that treatment is commenced, but afterwards, following paroxysms, for the detection of serious hurts.

CHARLES MOHR, M.D.

Homœopathic Treatment.—TABLE OF REMEDIES.—Absinth., actea rac., æther, æther chloric, æthusa, agaricus, ailanthus, alcohol, aletris, alumin., allium cepa, *amyl nitrite*, *ammon. brom.*, amm. carb., anacard., anthrac., anagallis arvensis, amyg. amara., ambra, angustura, aniline, arum mac., arum tri., arnica, *arsenic*, ars. sul.

rub., ARTEMIS. VULG., *arg. nitric.*, asafœt., aurantium, aurum, asterias, atropine, atrop. sul., baryta, benz. nit., BELLA., BUFO, caladium, CAMPHOR, chamom., camphor brom., *calc. ars.*, CALC. OSTR., calc. phos., cann. ind., coffea, canth., CAUSTICUM, castoreum, carbo animalis, carboneum, carb. ox., carbolic acid, carb. sul., cedron, cicuta mac., CICUTA VIROSA, cina, citr. suc., cauloph., COCCUL., chinin. ars., china, coca, chloral., crot. horrid., cori. r., CUPRUM, conium, curare, cypripedium, digital., drosera, ferrum, *gelsem.*, glon., graph., *helleb.*, *hydroc. ac.*, hyosc., hydrastis, hypericum, IGNATIA., indigo, iodium, ipecac., jasmin., juniper v., KALI BROM., kali carb., kali cyan., kali jod., LACHES., lauroc., ledum, *lycopod.*, melilot., mag. carb., mercur., merc. jod., merc. corros., mosch., menyanthes, natrum mur., naja, nitric acid, nux mosch., nux vom., oleander, *œnanthe croc.*, OPIUM, oleum jec., oleum cajup., plat., PLUMB., physos., phosph., phos. ac., polyanthes tub., petrol., *pulsat.*, SECALE, solan. nig., sepia, SILICA, SULPH., sul. ac., stann., staphis., STRAMON., sabad., santonine, strychnine, sumbul, tabacum, tarent., teucrium, thea, thuja, tanacetum, upas, verat. alb., vetrat. vir., valerian, viscum album, vipera, zinc, zizia.

CAUSES.—

Jealousy: hyosc., laches.

Emotional excitement: IGNATIA, arg. nitr., OPIUM, *cuprum*, bufo, HYOSC., atropine, (any excitement) *caust.*, sulph., natr. mur., STRAM., BELLA., art. vulg., amyl, camph., nux vom., agaric., coccul., chamom., calc. ostr., cicuta v., secale, indigo, *staphis*, (unjust charges).

Concussion of brain: cuprum, *arnica*, CICUTA V., OPIUM.

Traumatic lesion: pulsat., kali jod., sulph., rhus, staphis., hyperic., angus.

Congestion to head or upper spine: absinth., agaric., actea rac., amyl, BELLA., CALC. OSTR., GLON., GELSEM., *lach.*, lycopod., melilot., NUX VOM., OPIUM, SILICA, SULPH., sepia, STRAM., verat. viride, zizia, amm. brom., KALI BROM.

Abuse of alcohol: NUX VOM., SULPH., LACHES., OPIUM, *hyosc.*, *bella.*, ARSENIC, absinth., gelsem., agaric., cann. ind., *calc. ostr.*, stram., actea rac., arnica, kali brom., camph., camph. brom., amm. brom., asafœt., zinc sul. (with chronic diarrhœa), chinin. ars.

Sexual excitement: *canth.*, *laches.*, *hyosc.*, tarent., ignatia, *nux vom.*, kali brom., plat., cann. ind.

Cerebral irritation: amm. carb. (feels as if head would burst).

Cerebral exhaustion: ZINC, phos., lycop., etc.

Seminal loss, onanism, etc.: bufo, laches., *digitalis*, *china*, chinin. ars., CALC. OSTR., SULP., NUX VOM., kali brom., conium, stann., plat., phos. ac., cina, silica, ferrum, phosph., sul. ac., staphis., zinc phos., arg. nitr. (excess in venery).

Recur at time of menses; ovarian or uterine irritation: *actea rac.*, *nux vom.*, strychnine, *plat.*, IGNAT., *coccul.*, cuprum, PULSAT., *sepia*, *stann.*, tarent., cauloph., *bufo*, sulph., silica, calc. ostr., kali brom., hyosc., bella., stram., cann. indica, cedron, atrop. sulph., amm. brom., lach., *artem. vulg.*

Repercussed eruptions: SULPH., CALC. OSTR., SILICA, CAUST., CUPRUM, *arsenic*, *asafœtida* (ulcers), *stram.*, bella., gelsem., *camph.*, laches., agaricus, lycop., mercur., natr. mur., phosph., pulsat., sepia.

Abuse of narcotics: bella., opium, nux vom., cuprum, hyosc., coffea, citr. succus, ignatia.

Exposure to vapor of arsenic or copper: camph., mercur., verat. alb.

Arsenic for abuse of copper and *vice versa*.

From spurred rye: cicuta v., sol. nig. (perhaps also arsenic).

Year or more after bite: vipera (perhaps also other ophidians).

From tubercles of brain or lungs, *kali brom.* (often helps).

From syphilis: kali jod., nitric ac., merc. jod., iod., mezer., *merc. cor.*

During sleep attacks come on: bufo, calc. ostr., kali c., laches., silica, cina, OPIUM, stann., cuprum, lycop., secale, aurum, sep., sul.

Worse in the evening: stann. (only), *calc. ostr.*, caust., lauroc., opium, stram., sulph.

Worse in the morning: nux v., opium, *calc. ostr.*, sepia, *plat.*, kali carb., plumb.

Worse at night: *calc. ostr.*, caust., cicuta v., cina, CUPR., *hyosc.*, kali, *bella.*, lycop., strychnine, merc., *opium*, *secale*, *silica*, sulph., *arg. nitr.*, nitric ac. (after 12 P. M.).

During new moon: silica, caust., calc. ostr., cuprum.

During full moon: calc. ostr.

From anæmia (see onanism, etc.): *plat.*, CAUST., china, phosph.,

zinc phos., ferrum, alumina, COCCUL., *strychnine*, *kali brom.* (marked hebetude), ferrum brom., *bella.*

From osseous deposits in cranium: phosph., merc. sol. (if syphilitic).

Worse in open air: *nux vom.*, plat., sep., sulph.

Worse in the wind: sepia, sulph.

Worse from every change of weather, petroleum.

Venous congestion in abdomen: *cicuta v.*, nux v., SULPH., *sepia.*

From worms: *cina*, santonine, sabad., sulph., calc. ostr., *silica*, hyosc., *stann.*, artem. vulg., teuc., tereb. (tape worm).

Worse from drinking water: *calc. ostr.*, *bella.*, *hyosc.*, STRAM., *canth.*

Worse putting hands in water, aurantium (perhaps calc. ostr., tarent.).

Worse from a bath: SULPH., *rhus tox.*, *ant. crud.*

Worse from touch: carbon. ox., kali cyan., STRAM., morphin., arsenic (when taken by hand), camph. (rigid, if carried becomes convulsed), coccul. (if skin is pinched), NUX VOM., STRYCHNINE (but with nux firm grasping may relieve), *bella.*, *cicuta v.*

Least irritation, upas.

Pressure on stomach: cup. acet., canth., nux v.

Worse bright light as mirror, etc., STRAM.

Worse from noise, ignat., etc.

Worse if move briskly: aurantium—If run or start up, sulph. —From exertion: alum., kali c., natr. m., petrol.

Worse during dentition: CHAM., *agaric.*, BELLA., *stann.* (with each new tooth), *kreos.*, SULPH., CALC. OSTR., *silica*, etc.

With heart disease: CALC. ARS., *laches.*, *lauroc.*

Disordered stomach and bowels: CINA, IPECAC., NUX VOM., stann., aurantium (probably), cupr., *arsenic.*

Worse on awaking: BELLA., LACHES., nux mosch. (if forcibly aroused), STRAM., *cupr.*, *zinc* (latter three arouse, frightened), LACHESIS also has spasm awakening him.

Cold water relieves, camph., benz. nitr.

After cold water, he spat it out and became conscious, lycopod.

Wants to be bathed, phytolac.

Better from bathing, jasmin.

Drinking cold water as soon as pressure in stomach begins, prevents the attack, CAUST.

A drink of water recalls her, though she feels weak and nauseated, kali carb.

So long as he rides in his carriage or keeps in motion, the attack is warded off, NITRIC AC.

BEFORE THE ATTACK.—

AURA EPILEPTICA: like a mouse, BELLA., SULPH., ignatia, calc. ostr., nitric ac., sil. —From solar plexus, NUX V., indigo, SIL., bufo. —From stomach, bella. —Abdomen to head, heat, indigo. —Glow from feet to head, face pale, viscum album. —Tingling in fingers, secale, arsenic. —Tingling and burning from feet up spine to head, *arsenic*. —Cold air up spine and over body, AGARICUS. —Like cold wind on forehead, lauroc.

Aura from between shoulders, where there is a painful spot, *indigo*.

Aura in general, arsenic, cuprum, cedron, puls.

Spreads from toes and fingers, *cupr*.

Aura like a shock in the brain, hydroc. ac.

Aura like blushing, *amyl*.

Like a ball from uterus to brain, plethoric, BELLA.

Aura rises from the heart, CALC. ARS.

Knows attack is coming: amyl (feels a dread), CUPRUM, ARGENT. NITRIC., ether, natr. mur.

Unconscious, amyl.

Confusion, absence of thought, *laches*.

Confused, stunned, *arsenic*.

Vertigo: *arsenic*, *hyosc.*, *kali brom.*, CALC. OSTR. (in sudden attacks), CAUST. (suddenly falls, but soon conscious), camph., cedron, cann. ind. (and temples ache), kali jod., TARENT. (hystero-epilepsy), absinth., LACHES., *indigo* (always so, but worse before attacks), carbo. a. (she shrieks, opens her mouth, bends to right and backwards, with hands raised), secale.

Imbecility, *caust*.

Sudden loss of recollection, CALC. OSTR., CAUST., *staphis*. (ideas vanish).

Feels the attack like lightning rushing through brain, chin. ars.

Ecstatic, *cann. ind.* (feeling of mental and bodily exaltation).

Excitable, nervous, sleepless: BELLA., *kali brom.*, *cypriped.*, scutellaria, cham., calc. ostr., sulph., ignat., etc.

Angry, *bufo.*

Peevish, whining, hungry, days before, zinc.

Cries out: CUPRUM, hydroc. ac., cicuta v., hyosc., bufo, caust., etc. [See During attacks.]

Terrible hallucinations, *absinth.* See also *bella.*, stram., hyosc., kali brom., actea rac.

Apprehensive, caust.

Anxiety: staphis., lauroc.

Anguish with coldness and formication, *secale.*

Delirium, hyosc., bella., ignat., opium, stram., kali carb. (sees ugly people).

Jerking in head from behind forward, unconscious, *kali carb.*, *sepia.*

Starts, head trembles, jerk like an electric shock over body, CICUTA V.

Jerks head backwards, cina.

Head feels large, arg. nitr., atropine, etc.

Pain in occiput over head to right eye, followed by epilepsy: atrop. sulph.

Stares at one spot, *cocculus.*

Sparks before the eyes: *hyosc.*, cedron (flashes).

Flickering, bufo, cann. ind.

Eyes half open, agaricus (dentition).

Pupils dilated: *arg. nitric.*, cedron, BELLA.

Blindness, secale (with vertigo).

Intolerance of light, BELLA.

Illusions of sight and hearing: bella., stram., hyosc., absinth., cann. ind. (things seem far off).

Ringing, etc., in the ears: *hyosc.*, cann. ind. (noises), BELLA., *cedron*, amm. brom.

Head feels as if would burst, cann. ind.

Headache: *caustic.*, laches., cham., BELLA. (throbbing, congestive), cann. ind. (temples), staphis. (brain as if compressed), cina (also after), *calc. ostr.*

Heat of head, followed by general sweat, *caust.*

Face tumid, cedron.

Like ants crawling over the face, *nux vom.*

Pains in head replace the uterine contractions before spasm, zizia.

Pale face, *laches.*

Cannot move the tongue well, caust.

Stammering, *bella.*, STRAM.

Speech unintelligible, silica.

Tongue heavy, kali jod.

Tongue swollen, plumbum.

Pharyngeal spasm, followed by desire to swallow, calc. ostr.

Throat constricted: BELLA., HYOSC., STRAM., crot. h., LACHES., *canth.*, naja, coccul.

Chewing motion, CALC. OSTR.

Nausea, *cupr.* (also throws up phlegm).

Hunger: *hyosc.*, calc. ostr., cina, zinc (days before).

Burning in the stomach and spine, *arsenic.*

STOMACH, agony, heat, œnanthe.

Great pressure in pit of stomach, CAUST. (See chest).

Spasmodic pain in the stomach, petroleum.

ABDOMEN: colic, chamom.

Bloated: CUPR.

Before spasm, labor pains cease and feels pain in epigastrium, zizia.

Menses black as tar, artem. vulg.

Terrible pains in ovary: atrop. sulph.

Urination, cicuta v.

Priapism, canth.

Cough, leading to convulsion, CINA, *ipecac.*

Deep inspiration, followed by a sigh and slight twitchings, agaricus (during teething).

Arrest of breathing during sleep: *sulph.*, LACHES, *sepia.*

Palpitation: *arsenic*, amyl, LACHES., crot. h., cedron, *calc. ostr.*, *cuprum.*

Pain in heart, *calc. ars.*

Pulse accelerated, œnanthe.

Feeling of coldness in back and abdomen, secale.

Backache: calc. ostr., lycop., mosch., mercur.

Pressure extends from stomach over chest, hindering breathing, *caust.*

Extends and then bends the limbs, *cicuta v.*

Shocks and downward motion as if stamping, cina.

Beats about with the arms, arsenic.

Involuntary motion of left arm, *cuprum.* —Throws arms and legs, cina, stram., etc. —Pain in left arm, lycopod. —Shaking of left arm, sil. —Left arm bent back, fingers clenched, lycopod. —Legs heavy, numb, PLUMB. —Lassitude, KALI BROM. Weak, cannot turn unaided, *silica.* —Twitching and tremor of arm, arsenic.

Draws the arm involuntarily close to the side, *cuprum.*

Restless, fidgety, etc.: aurantium, *arsenic, bella.*, stram., hyosc., ARG. NITRIC., CALC. OSTR.

Irritable nerves: BELLA. (starts), *kali carb.* (if feet touched, starts).

Trembling: CUPRUM, absinth., nux vom., ARSENIC, benz. nitric, etc.

Child hurried in manner: *bella.*, SULPH., sul. ac., ARSENIC, laches., hepar.

Sensation of fainting: arsenic, laches., bufo.

Left side cold: *silica*, zinc sul. (fainting fits).

One leg twitches in sleep, very characteristic of ARSENIC (see SULPH).

Sleep: starts, SULPH., *silica*, BELLA., CHAM., STRAM., *cuprum*, ZINCUM, cicuta v., *rhus* (child wants to sleep, but starts; orgasm).

Comatose: agaricus (dentition), cupr.

Crawling under the skin: bella., SECALE (formication).

Body burning hot: arsenic (child licks parched lips), zinc.

Severe neuralgia, ovarian, orbital or supra-orbital, atrop. sulph.

Numb arms and legs, headache: cedron.

Screams in sleep, wakes affrighted: ZINC, STRAM., CUPR., LYCOP. (and very cross).

Burning pains follow the trembling and formication: secale.

DURING THE ATTACK.—

UNCONSCIOUS: absinth., *agaric.*, ars., amyl, benz. nitr., BELLA., bufo, CALC. OSTR., CAMPH., calc. ars., caust., CICUTA V., *chamom.*, canth., crot. h., CUPRUM, *coccul.*, ETHER, CHLORIC ETHER, GLON., HYOSC., HYDROC. AC., IGNAT., juniper, *laches.*, lauroc., lycopod., œnanthe, OPIUM, PLUMB., angus., sepia, santonine, secale, *silica*,

solan. nig., *sulph.*, sul. ac., stann., *stram.*, cedron., staphis, chinin. ars., puls., tarent., tanacetum, carb. ox., arg. nitric. (falls forward), petroleum; coccul., nitric ac.

CONSCIOUS: camph., CINA, canth., helleb., *kali carb.*, lycopod., *mag. carb.*, menyanthes, *moschus* (body stiff), natr. mur., nitric ac., *nux v.*, phosph., *plat.*, *nux mosch.*, plumb., sulph.

CRYING OUT: stram., CICUTA V., cedron, CUPRUM, mercur., œnanthe, crot. horrid., opium (groans), absinth., hydroc. ac. (groans), tanacet., solan. nig. (plaintive), arsenic, camph. (both have moaning), lauroc. (for help), juniper, *hyosc.*, ignat., sil., stann., verat. viride, *nux vom.*, *sulph.*, pulsat., plumb., petrol., *lycopod.*, opium, calc. ostr., *caust.*, *cina*, *laches.*, nitric acid. [See Before attack.]

Anxiety: secale, cuprum, bella., verat alb., caust., ign., lycop., sulph., hyosc., cham., calc. ostr.

Talks foolishly: secale.

Cry alternates with risus sardonicus: cedron.

Rage: BELLA., *canth.*, HYOSC., STRAM.

Raving: ars.

Head falls one way or other: œnanthe.

Dull feeling in forehead and vertex; fullness about medulla oblong.: GELSEM.

Rush of blood to head: sul. ac., calc. ostr., china, hyosc., mosch., nat. mur., sul. ac.

Convulsive movements of the head: cicuta v., nitric ac., nux v., stann.

Head bent sideways, camph.; to right, lycopod.

Head drawn to one side: CAUST., *coccul.*

Head buried between shoulders: hydroc. ac.

Clammy sweat on head and forehead: camph., cham.

Twists head in quick succession: *stram.*

FACE, red: aethusa, CICUTA V., vipera, santon., BELLA., camph., nux v., CUPR., lycop., STRAM., ignat., hyosc., *caust.*, cina, ipec., lycop.

—Livid, blue, purple: CUPRUM, CAMPH., cicuta mac., *cicuta v.*, *cina*, agaricus, benz. nitr., *hyosc.*, tanacetum, junip., *nux vom.*, œnanth., plumb., arsenic, agaric, opium (turgid), ailanth., VERAT. ALB., absinth., carbolic ac. (leaden), HYDROC. AC., *atropine.*

—Pale: caust., *cuprum*, CINA, plumb., *puls.*, stann., *cicuta v.*, crot. h. (as in fainting, probably also here, laches.), amm. carb. (and bloated), ANGUS., *ipecac.*, *sil.*, *sulph.*, *arsenic*, laches., *bella.*, *china* (deathly pallor), calc. ostr., *verat. alb.*, mosch., natr. mur., absinth.

—Yellow: *cicuta v.*, plumb. (earthy).

Pupils dilated: cicuta mac., cicuta v., cina, coccul., juniper, œnanth., plumb., BELLA., coca, carbolic ac.

Tension of facial muscles: angus.

Pupils contracted: phytolac., opium.

Sudden drawing and giving way again in the brain; objects looked at move slightly away from place and then back; distant objects swing: bella. (See under Stomach).

Spasm of eyeballs: plumb., santon., camph.

Eyes fixed, staring: CICUTA V., cina, coccul., *cupr.*, arsenic, *hydroc. ac.*, nux v., œnanthe, opium, plumb., santon., *silica*, bella., camph., caust., carbolic ac., *puls.* (petit mal), secale (facial muscles are contracted).

Eyes turned upwards: aethus., cina, œnanthe, plumb., merc. c.

Eyes closed: ars., angus., BELLA., camph., CHAM., *coccul.*, cup., HYOSC., laches., MERCUR., NATR. MUR., *rhus t.*, *sep.*, *sil.*, STAPH., stram., sulph.

Eyes protrude: coccul., cupr., nux vom., hydroc. ac., hyosc.

Nictitation of lids: AGARICUS.

Eyes distorted: caust., CICUTA V., verat. alb., hydroc. ac., plumb., *bella.*, canth., *coccul.*, *cupr.*, *hyosc.*, *laches.*, lauroc., mosch., *sil.*, sul. ac., *ignat.*, stann., cina, *plat.*, secale.

Twitching of eyelids: camph., cham., ign., ipec., plat., bella., etc.

Involuntary motion of eyes and corners of mouth: plat.

Eyes wide open: tanacetum.

Blood from the ears: cicuta v.

Nose twitches, aurant.

Nose bleed, caust.

Mouth distorted: cicuta v., bella., lycop., mercur., nux v., op., secale, stram.

Mouth drawn to one side: ars., bella., sulph. (to right and left).

Mouth and head drawn to and fro, nitric acid.

Foams at the mouth: aethusa, cicuta mac., *et v.*, hydroc. ac.,

coccul., *cupr.*, œnanthe, *plumb.*, tanacet., sul. ac., *hyosc.*, *ignat.*, nux vom., arsenic, *bella.*, benz. nitr., *sil.*, tanacetum, agaric, crot. h., *laches.*, canth., cham., cina, lauroc., *lycop.*, opium, cedron, staphis., ailanth., *calc. ostr.*, *caust.*, absinth.

Flow of saliva: caust., lycop.

Mouth open: mosch.

Marble-white around mouth, merc. corros.

Grating or gnashing the teeth: caust., cicuta v., sul. ac., hyosc., bella., sulph.

TONGUE, bites it: bufo, bella., cicuta v., ignat., laches., pulsat., coccul., œnanthe, plumb., camph., nitr. ac., *caust.*, absinth, tarent., tanacetum.

Jerks tongue: vipera, carbolic ac.

Protrudes tongue: cupr., cham., cina, œnanthe, plumb., vipera, laches.

Lolls the tongue, *silica.*

JAWS LOCKED: aethusa, canth., CICUTA V., ars., coccul., ignat., BELLA., *opium*, CUPRUM, hydroc. ac., jasmin., junip., nux vom., œnanthe, phytolac., benz. nitric, secale, stram., tabac., sulph., vipera, *camph.*, *angus.*, carbolic ac., *physos.*, cedron, lauroc., SIL., plat., VERAT. ALB., rhus, PLAT., absinth., angus., MERCUR., OPIUM, tanacetum.

Angle of mouth drawn up, ether.

Shows upper teeth: nux vom., camph., angus., phytolac.

Lips rigid, plumb.

Lips twitch, *sil.*

Lips quiver: CHAM., IGNAT., IPECAC., *bell.*, plat., sil., stram.

Horror of liquids: hyosc., STRAM., canth., *bell.*

Talks foolishly, secale.

Talks with difficulty, secale.

Chin drawn down to chest: olean., phytolac.

Cramps in pharynx, sul. ac.

Paroxysms of choking: *coccul.*, junip.

Clutches the throat, BELLA.

Throat closed: CICUTA V., BELLA., *hyosc.*

Spasm of glottis, *gelsem.*

Hiccough, CICUTA V.

Eructations of wind, ARG. NITRIC.

STOMACH: swells, as from spasm of diaphragm, CICUTA V.

Strange sensation in pit of stomach, like the drawing in the brain; objects swing (see Eyes), *bella.*

Vomiting: CUPR., IPECAC., CAMPH., *laches.*, *nux vom.*, pulsat., china, *lycop.*, mosch., *natr. mur.*, plat., nitric ac., *puls.*, secale, sepia, sil.

Pain at pit of stomach, stram.

Vomiting, purging, preceded by griping and spasmodic contraction of abdominal muscles, arsenic.

Throbbing pain in epigastrium, glon.

Burning at the stomach: nux mosch., camph., arsenic.

Raging pain in the abdomen and head, vipera.

Abdominal inflammation with spasms, merc. corros.

Colic: PLUMB., alum., *bell.*, *caust.*, CHAM., *cupr.*, CUPR. ARS., kali c., *laches.*, *mercur.*, *natr. mur.*, *sep.*, *sulph.*

Abdominal muscles contracted: hyosc., PLUMB., ars., secale.

Diarrhœa: hyosc., nitric acid, sepia, alum., chin.

Fœces pass: bella., hydroc. ac., nux vom., absinth.

Spasmodic retention of urine, SECALE.

Urinates: coccul., plumb., bella., CAUST., *cuprum*, *hyosc.*, hydroc. ac., nux vom., lach., natr. mur., *stram.*, absinth., bufo, puls., secale.

Seminal emission, absinth.

Constriction of the larynx: hydroc. ac., bella., coccul., hyosc.

BREATHING: cuprum, cicuta v., etc., etc.

STERTOR: OPIUM, nux vom., œnanthe, ether, carbolic ac., benz. nitric., camph., hyosc., stram., absinth.

Embarrassed, ailanth.

Stertor, alternately with screaming, opium.

Suspended: plumb., verat. v., NUX VOM., santon.

Snoring, nitric acid.

Struggling, junip.

Labored: tanacetum, secale.

Gasping: camph., LAUROC.

Interrupted, CICUTA V.

Rattling: hyosc., absinth.

Dyspnœic: sul. ac., hyosc. (from spasm of pectoral muscles), cedron, amm. carb., angus., bella., camph., cicuta v., ign., lach., lycopod., nux vom., opium, sulph.

Suffocation: *coccul.*, CUPR., OPIUM (with stertor).

Oppression of the chest: ARS., AURUM, bella., camph., SULPH.

Tightness of chest; crampy feeling sub-sternum, AURUM.

Constriction of the chest, lauroc.

Palpitation: glon., *lach.*, cedron, lauroc., ars., sulph., glon., *mercur.*

Præcordial swelling: cicuta v., lycopod.

Præcordial anguish, hystero-epilepsy, *tarent.*

Heart's action feeble: œnanthe, benz. nitric., hydroc. ac., hyosc.

Pulse spasmodically contracted, SECALE (see also indigo).

Pulse hard, tense, frequent, amm. carb.

Anterior cervical muscles so contracted, could not lay his head back on the pillow, hyosc.

Neck twisted to one side, hyosc.

Spasmodic tension and stiffness of the muscles of the neck and shoulders, hyosc.

Nape of neck stiff, lauroc.

Spasms of cervical muscles, carb. ox.

Intense action of dorsal and lumbar muscles, œnanthe.

LIMBS.

ARMS, drawn up against chest: oleander, nux vom., merc. c. (also legs, hands, feet), secale (elbows pressed against chest, wrists flexed, heels drawn up, toes flexed), CUPR.

Arms extended, carb. ox.

Arms out at right angles, hands bent, forearm supinated, tanacetum.

Arms rigid and thrown over head, verat. viride.

Arms nearly turned around by pronators, hydroc. ac.

Left arm bent upwards, lycopod.

Rotary motion of left arm, STRAM.

Hands outstretched, as if would grasp something, solan. nig.

Arms and hands pronated and extended, with convulsive spasms; legs drawn to abdomen, plumb.

Fingers spread, glonoin, *secale c.*

Bites her hands, tears things, opium.

HANDS, clenched: coccul., junip., hydroc. ac., *phytolac.*, merc. c., secale, bell., tabac., benz. nitr., ailanth., laches., lycop. (fingers).

Fingers clenched, the hands being stretched out, coccul.

Thumbs clenched: CUPR., stann., aethus., plumb., bella., calc. ostr., HYOSC., sulph. (thumb retracted), œnanthe, staphis., *arsenic*, *ignat.*, *laches.*, MERCUR.

Gnaws fingers, cina.

Nails bluish: nux vom., œnanthe, hydroc. ac. (lead-color).

At intervals, grasps at things, cina.

Twitching of the fingers: amm. c., camph., cham., cupr., hyosc., ign., mercur., mosch., secale, staphis.

Contractions of the fingers, opium.

Contractions of the limbs: bell., bismuth, ferr. m., hyosc., lycop., mercur., *secale*, stram.

Tosses the limbs, stram.

Body, (motion as in coition), legs flexed, *caust.*

Body tossed upwards, limbs flexed, *hyosc.*, sulph. (up and down).

Stretching and distortion of head and limbs, *sil.*

Strikes convulsively with hands and feet, hyosc., lach.

Throws arms and limbs about, lycopod.

Limbs stiff, phytolac.

Limbs cold, œnanthe.

Limbs drawn in and flexed, CUPRUM.

Contortions: coccul., CICTUA V. (of limbs and head), ars., *bell.*, canth., *cupr.*, secale.

Thighs drawn up against abdomen: *nux vom.*, hydroc. ac.

Limbs extended and fixed, *camph.*

Limbs rigid: aethus., alum., ANGUS., *bell.*, CAMPH., *cicuta v.*, *cupr.*, hell., hyosc., IGNAT., IPECAC., lach., *mercur.*, *nitr. ac.*, *op.*, plat., secale, STRAM., *sulph.*, *verat. alb.*

Limbs rigid, spasmodic yawning, plat.

Limbs stretched: amm. c., BELLA., CAMPH., CICUTA V., cina, ipec., lach., lycop., merc., SECALE, sil., STRAM., sulph., verat. alb.

Jerks of right leg extending to stomach, lycopod.

Stamping, irritable, fixed eyes, puls.

Cramps in the leg or calves: *camph.*, CHAM., CUPR., CHOLOS TERRAP., lycop., SULPH., calc. ostr., natr. mur., RHUS, SECALE, *sepia*, sil., VERAT. ALB., IGNAT., IPECAC., *mosch.*, *nux v.*, *op.*, *plumb.*, stram., etc.

Toes in motion: anac., *calc. ostr.*, *caust.*, china, cicuta v., cina, *cupr.*, *hyosc.*, laches., *lycop.*, *mercur.*, nux v., opium, phosph., plat., *rhus*, *secale*, *sil.*, stram.

Feet extended, toes flexed, phytolac., nux vom.

Legs extended, feet turned outwards, nux vom.

Most violent outstretching of the joints, *secale.*

Heels touched nates, hands flexed and fingers spread, plumb.

Trembling, more than jerking, tanacetum.

Prefers jumping to walking, bufo.

Extraordinary muscular strength, AGARICUS, etc.

Sphincters contracted, kali cyan., BELLA.

Tears and beats about, unconscious, lycop.

Pale, lies as if dead, though warm, *arsenic.*

Looks as if dead, arg. nitric.

Twists body to the left, hydroc. ac.

As if fainted: camph., cupr., lach., mosch., nux vom., verat. a.

Lies motionless, as if dead, lycopod., crot. h.

Anæsthesia, nux vom.

Coma: sol. nig., kali jod. (traumatic case), *stram.*

Cold feeling in the arm, in which he had the jerk, caust.

Icy coldness: CAMPH., *helleb.*, caust., *secale.*

Limbs cold: CAMPH., caust., cicuta v., hyosc., mosch., op., verat. alb., carbol. ac.

Surface cool, jasmin.

Fever: *sulp.* (fever, heat and chills), STRAM., BELL., OPIUM.

Spots rosy, then deep red, œnanthe.

Skin over chest and stomach, bluish, *cuprum.*

Surface black, with the congestion, jasmin.

Surface purple, benz. nitr., œnanthe, hyosc., camph.

Sweat of head: BELLA., caust., CALC. OSTR., cuprum, camph., CHAM.

Sweat: *bell.*, OPIUM, secale, sil., laches., nux v.

Cold sweat: coccul., SECALE, CAMPH., sul. ac. (face), VERAT. ALB. (forehead).

Upper part of body most convulsed, limbs cold, caust.

BETWEEN AND AFTER THE ATTACKS.—

Headache, spells of madness, after which, loses breath, petrol.

Delirium: plumb., secale, *stram.*, bella., absinth., cupr.

Wild look, ars., œnanthe.

Face expresses rage, pushes every one away; teeth clenched, coccul.

Hallucinations may continue, absinthe.

Anxiety, caust., *bella.* (between attacks).

Peevish, angry, scolding between attacks, *bella.*, CALC. OSTR.

Makes foolish sounds, lycopod.

Gradually developing idiocy, *secale.*

Stupid between spells, *calc. ostr.*

Memory weak, secale.

Long continued stupid feeling, PLUMB., absinth.

Unconscious: CICUTA V., junip., plumb., secale, benz. nitr., OPIUM.

Vertigo: plumb., *bella.*, *calc. ostr.*, tarent., *nux v.*, laches., *sil.*, *opium*, *ars.*

Headache: plumb., cina, calc. ostr.

Few seconds after spasm, head drawn slowly backwards, and eyes stretched wide open, tanacetum.

Pressive pain in occiput between attacks, *arsenic.*

Tightness from forehead to occiput, indigo (between attacks).

Pupils dilated: *secale*, BELLA.

Staring: junip., secale.

Blind, secale, bella.

Conscious some time before can open eyes, cuprum.

Forehead and face covered with sweat, nux vom.

Tears drop, sil.

Face red, bloated, coccul.

Cheeks and lips blue, nux vom.

Flushes of heat in face, redness, heat, BELLA.

Face pale, sunken, plat., staphis., phosph., zinc, etc.

Face pale, puffed, *calc. ostr.*, tanacet. (pallid and livid).

Noises in the ears, bella.

Stoppage of the nose, caust.

Lolling the tongue, caust.

Small, painful ulcers on edge of tongue, *cicuta v.*

Protrudes the tongue, œnanthe.

Jaws remain clenched between spasms, tanacetum.

Tongue white on sides, CAUST.

Mouth shaped as when smoking, plumb.

Canine hunger, CALC. OSTR.

Loud eructations and then conscious again, chinin. ars.

Vomiting, calc. ostr.

Vomits after the spasm, then becomes cataleptic, tanacetum.

Diarrhœa, calc. ostr.

Urination, cina (between attacks), CUPRUM.

Breath even shorter than in attack, sulph.

Stertor: plumb., OPIUM and juniper (both apoplectic).

Pulse slow; weak heart, CUPRUM.

Backache: calc. ostr., lycop., mosch., mercur., indigo (soreness).

Burning in spine between attacks, *arsenic.*

Hands closed after the attack, carboneum.

Long lasting shaking of right hand, CUPRUM.

Pain in small of back and coldness of shoulders and joints, CAUST.

Burning, tearing in small of back, cuprum.

Frequent cramps in calves, *arsenic* [*cholos terrapin.* may serve as a preventive if given for severe cramps].

Limbs remain distorted, secale.

Sleep, coma: sulph., BUFO, CUPRUM, HYOSC., œnanthe, secale, caust., puls., absinth., ailanth., camph.

Lies on back, limbs uncovered and drawn up, plat.

Limbs remain rigid, secale.

Prickling in finger tips like needles (constant), indigo.

Contractions: *secale* (can only walk on toes).

Limbs numb: *nux vom., bell., opium, secale,* sulph., rhus t.

Prostration: CICUTA V. (unconscious and nearly lifeless), SECALE, ARSENIC, solan. nig., upas, CAMPH., sul. ac., *hydroc. ac.,* ignatia, PLUMB. (paralytic), santonine, cedron, *caust,* CHININ. ARS., carboneum.

Syncope: ignat., cham., cupr., verat. alb.

Paralysis: sul. ac. (general with epilepsy), santonine (partial), plumb. and *secale* (anæsthesia), CUPRUM, CAUST., *lach.,* arg. nitric., *coccul.,* lauro., hyosc., nux vom., *rhus tox.,* absinthe.

After he throws his limbs he lies as if dead, lycopod.

Spasm ends with a jerk all through body, arsenic.

Restlessness, which urges him to run away, CAUST.

In constant motion until another attack, *arg. nitr.*

Twists and writhes until another attack, *cuprum.*

Profuse sweat: *bufo,* sil., bell., secale.

Sweat cold, CAMPH.

Sweat warm, OPIUM.

FORM OF SPASM.—

LE GRAND MAL: BUFO, *hydroc. ac.*, CUPR., CICUTA V., CALC. ARS., HYOSC., œnanth., PLUMB., *secale*, OPIUM, SULPH., KALI BROM., BELL., *silic.*, camph. brom., camph., amm. brom., ars., stram., absinth., CALC. OSTR., CAUST., puls., sep., etc., etc.

LE PETIT MAL: CAUST., *calc. ostr.*, chloral, kali brom., kali jod. (traumatic), *bella.* (anæmic), puls., sulph. (suddenly unconscious in street).

HYSTERO-EPILEPSY: *cann. ind.* (see Hart). Compare also as somewhat similar but not perfectly suitable to this grave affection: *valerian, mosch., asafœt., coccul., ignat.*, nux m., plat., TARENT., *stram.*, puls., castoreum, ambra, *caust.*, sumbul.

Frequent repetition of spasm: ART. VULG., *amyl, nux vom.*, arsenic, bella., arg. nitric., cicuta, junip., kali cyan., nux m., œnanthe, opium, plumb., secale, aurant., glon., absinth., tanacet.

[The following are remedies which have a more or less complete resemblance to a typical epilepsy. They are frequently needed, since they often afford characteristics of much therapeutic value. Here, too, will be found the remedies, which have produced or cured the various forms of spasm, making up the epileptic attack.]

TONIC SPASMS: cicuta m., CICUTA V., *coccul.*, CUPRUM, hydroc. ac., junip., kali cyan., œnanthe, *opium*, tanacetum (flexors of forearms), tabac. (limbs rigid), *angus.*, BELL., *caust.*, *cham.*, hyosc., *ignat.*, *lycop.*, *mosch.*, natr. mur., nux vom., *petrol.*, *plat.*, *secale*, *sepia*, sil., stann., *stram.*, sulph.

TETANIC: cicuta m., cicuta v., coccul., *hydroc. ac.*, *hyosc.*, kali cyan., morphin., opium, NUX VOM., *ars.*, œnanthe, plumb., santon., cina, coca, secale, *solan. nig.*, benz. nitr., tabac., *ignatia*, angus., *bella.*, camph., cuprum, laches., lauroc., amm. carb., stram., absinth., tanacetum., carb. ox.

Tetanic, alternating with shocks: coccul., nux v.

Alternate trismus and opisthotonos, nux vom.

Alternation of tetanus and insensibility, œnanthe.

OPISTHOTONOS: CICUTA V., jasmin., morphin., OPIUM, IGNAT., NUX VOM., œnanthe, stann., *verat. v.*, arsenic, petrol., phytolac.,

secale, benz. nitr., camph., ether, stram., cuprum (also with limbs spread out to the sides), rhus, IPECAC., cina.

Coma alternating with convulsions and moaning, sol. nig.

Convulsive action, then relaxation, then tetanus, phytolac.

Alternation of opisthotonos and repose, cupr.

Opisthotnos yields to rolling, camph.

Tonic alternate with clonic spasms, absinth.

Emprosthotonos: *hydroc. ac.*, œnanthe, secale.

Trunk spasmodically bent forwards, hydroc. ac.

Altern. with opisthotonos, BELLA., cina.

Pleurosthotonos, cina.

CLONIC SPASMS: cicuta mac. (contraction and partial relaxation with wonderful rapidity), CICUTA V., coccul., morph., cup. sulph., plumb., merc. cor., STRAM. (with blowing, hissing), upas (neck and extremities), tabac. (from pain in abdomen; rattling), AGAR., alumin., *arsenic*, BELL., *calc. ostr.*, *caust.*, *cham.*, CUPRUM, HYOSC., *ignat.*, *kali c.*, *lycopod*, natr. mur., OPIUM, *plat.*, *secale*, *sepia.*, *sil.*, *stann.*, *sulph.*, absinth., tanacet.

Altern. clonic and tonic, secale.

Clonic, then tetanic, carb. ox.

Tonic and clonic, carboneum.

Alternate convulsions of upper and lower limbs, hyosc.

Alternation of convulsions with flexion and extension of limbs, plumb.

Convulsions of muscles of back, *angus.*

Spasmodic twitchings, muscles of neck draw head back, absinthe.

SHOCKS: angus. (along back), ambra., angus., bell., CICUTA V., actea rac., coccul., CUPR., lycop., nux vom., op., *sulph.*, verat. alb., zinc., *arsenic* (lies as if dead, finally twists mouth, then a jerk over body), graph.

From tongue to lungs, preventing breathing, thence to stomach, arms, legs, carboneum.

Spasms of head: secale (twists head to and fro), cicuta v. (holds it rigid), SEPIA (forward and back), alum., *stram.* (up from pillow, or in all directions), CUPR., kali carb.

—Of tongue: *caus.*, *cupr.*, cham., kali c., *lycop.*, mosch., plat., plumb., sil., sulph.

—Of throat: alum., *ars.*, BELLA., *calc. ostr.*, *canth.*, coccul., HYOSC., IGNAT., LACH., *lauroc.*, *natr. m.*, NUX VOM., *plat.*, STRAM., SULPH., *verat. alb.*, zinc.

—Of back: *ang.*, ars., *bell.*, *canth.*, *cham.*, *cic. v.*, *ign.*, *ipec.*, laur., *op.*, *rhus*, *stann.*, *stram.*, sulph.

—Of chest: amm. c., angus., bella., camph., aur., cupr., cicuta v., hyosc., ignat., ipecac., kali c., lach., lyc., nux v., op., plumb., sep., stann., stram., sulph.

—Of arms: bell., camph., caus., cham., *chinin.*, *cic. v.*, *crot. hor.*, *cupr.*, ign., *ipec.*, *mercur.*, op., plumb., *secale*, *sepia*, *sil.*, *stram.*

Spasm begins in toes, followed by distortion of the eyes, hydroc. ac.

Periodical: CEDRON, ARSENIC, *china*, *chin. sulph.*, vipera, laches., cuprum, ignat., plumb., secale.

COMMENTS.—

The following remarks concern particularly such of the remedies in the list as are peculiar, rarely indicated, or of doubtful utility.

It would be an impossibility to transfer to an article like this, all the symptoms, to which reference may be made in searching for a needed similimum. We have, therefore, incorporated merely leading symptoms derived from provings as well as from reported clinical experience.

A. If it is desired to know which drugs seem best adapted to the epileptic spasm itself, with its characteristic unconsciousness, tonic and then clonic convulsions, frothing at the mouth and biting of the tongue; or with apoplectic seizure; or, again, vertiginous, we may consult mainly the following, which are arranged in three groups, corresponding to the forms mentioned above:

1. Cuprum, cicuta v., hyosc., hydroc. ac., œnanthe, secale, plumb., opium, sulph., caust., calc. ostr., bufo, kali brom., amm. brom., bella., silic., brom. camph., strychnine, camph., arsenic, stram., calc. ars., absinth.

2. Opium, junip. virg., hyosc., ailanth., plumb., bell., laches., apis.

3. Caust., calc. ostr., arg. nitr., bella., kali brom., silic., hyosc., ether, chloric ether, absinth.

The remaining drugs are to be selected upon constitutional or other grounds than the mere seizure itself.

B. If there is much cerebral and spinal congestion, absinthe, alcohol, artemis. vulg., glon., camph., amyl, gelsem., melilot., verat. viride and amm. brom. compare well with bella., stram., opium, etc.

Absinthe may be distinguished by its causing repeated attacks; there are terrifying hallucinations before, with anæsthesia and paralysis after (compare in the latter respect, artemis. abrot.). [See Allen's Critical Exam. of our Mat. Med.] Alcohol does not cause such frequent repetition of spasms as the wormwood.

Artemisia vulg. agrees with its relative as to frequency of attacks, and no doubt thorough provings would show the action of the two almost identical. Clinically, however, the artem. vulg. is best known.

Glonoine requires throbbing, congestive headache, stupidity; forgets known streets; violent palpitation, sunstroke.

Amyl nitrite is its near neighbor. A strong duo of symptoms is: dread of an oncoming attack; fullness of the head, flushing face.

Camphor introduces sudden, overwhelming attacks. Pulsating occipital headache. The face is red, bloated, and stertor and coma profound. It often modifies when it cannot cure.

Melilotus has been suggested when spasms accompany its characteristic congestive headache.

Ammon. brom., in the hands of Dr. Kitchen, has been very successful. Administered to one epileptic, it seemed to develop four successive spasms, all presenting symptoms of genuineness. (See Raue's Record, 1870.) Allopaths give the drug for frontal headache, suffused eyes, ptosis or convulsive closure of the eyelids. Tinnitus aurium from congestion of the labyrinth. Sense of constriction about the head and chest. Fingers stiff, numb, swollen, blue under the nails. Pain from nape to occiput; weariness. Hot flushes and cold chills. It is a "gangliasthenic."

Its symptoms agree somewhat, then, with the hebetude of kali brom.

Until thoroughly proved, we may be guided by its headache, hebetude, and accompanying eye-symptoms: eyes red, sore, with

white mucus in the corners; scrofulous patients. The latter seems quite characteristic. (See Allen's Encyclo., Hering's Guiding Symp.)

C. If the patient is excessively nervous, excitable, sleepless, especially in recent or impending cases, we may profitably consult: bella., kali brom., cypriped., scutellaria, cham., calc. ostr., sulph., kali carb., arsenic, hyosc., stram., cuprum, zinc, lycopod., etc.

The third and fourth mentioned, may be needed in children, who cannot sleep; they awaken often and are lively and over-naturally bright and cheerful. Scutellaria causes: twitchings; restless, strong desire to move about; frightful dreams, interrupted by sudden wakefulness; pupils large, face flushed. If, however, these drugs do not afford prompt relief, we should consult sulph.: wakes easily and frequently, *wide-awake;* on dropping off to sleep, legs jerk violently. This state of being wide-awake also suggests calc. ostr.: can't sleep, on closing its eyes sees figures—also, kali carb., sleepless, can't stop thinking; if touched, especially about the feet, he starts; awakens cross and kicking (like lycopod.)—also, arsenic, which has often prevented an impending epileptic attack when one leg twitches in sleep.

Hyoscyamus wards off the dreaded attack, when the patient sleeps restlessly, moans, twitches, single groups of muscles are convulsively active.

Zinc, cuprum and stramonium, though widely different in general action, agree here in one symptom; awakens frightened. The first may be known by the peevishness, which anticipates attacks; the second soon develops violent spasms, with *clenched thumbs,* biting the tongue and preponderating flexor spasms. Stramonium requires a wild expression, vivid hallucinations and red face.

D. In nervous women, if they are hysterical, especially if they suffer from decided hystero-epilepsy, Hart recommends cannab. indica—a drug not often needed in ordinary forms of epilepsy.

If the woman is weak and nervous, castoreum seems to tone up the nerves and prevent spasm. If there are present neuralgic pains in small places, better from pressure, the choice will be a good one. Amenorrhœa is another symptom; this is associated with tympany, cutting colic, dragging; chilliness.

E. If weakness is the result of loss of fluids, severe disease, etc., china and chinin. ars. take the lead and may be all that is needed. The second named is useful when the spasm is followed by the most profound exhaustion.

Digitalis and phos. ac., are useful when sexual excesses have developed the tendency to spasms; and without them, remedies more specifically related to epilepsy, will be of little use.

If to sexual abuse, mercurialization is added, staphisagria is the remedy. The patient is morbid, becomes profoundly impressed by even slight assaults on his honor and reputation; shy in company; shamed-faced; weak, back aches, can scarcely walk; eyes sunken and surrounded with dark rings; gums spongy.

Sometimes sexual excess results in a full fledged epilepsy. Then compare bufo, arg. nitr., sulph., calc. ostr., kali brom.

F. Epilepsy dependent upon ovarian irritation, may require, actea rac., amm. brom., atrop. sulph., bella., laches., plat., arg. met., kali brom., tarent., zizia.

G. If concussion of the brain or some other mechanical injury has excited the disease, cicuta v. stands foremost for the first, and arnica and hypericum for the second cause. Angustura has acted well; and, when also the fibrous tissues generally are diseased, kali jod. has cured.

Angustura must not be confounded with nucis vomicæ cortex. Early homœopathic writers confused the two. The angus. vera causes drawing in facial muscles; trismus; tensive pain in temporal muscles when opening the jaws. Cramp-like pain apparently in the masseter muscles; sense of tremulousness in the muscles of the back; neck stiff; tension, stiffness of back and of muscles generally. Excited, extravagant spirits with tense feeling of tendons (compare physostigma). The remedy, then, is best adapted to tetanics; but a Spanish writer has used it successfully in epilepsy, especially when preceded by a very pale face.

H. Citrus succæ is mentioned as an antidote to stramonium and to spasms from abuse of narcotics. Its near relative aurantium amara, the bitter orange, ought to be serviceable in spasms from indigestibles in the stomach or bowels. The spasms are markedly facial. And it is just here that nux vom., ipecac., cina, stann. and cuprum, frequently prove serviceable. If there

are marked pains, cramps, etc., of the abdominal viscera, cupr. ars. ought to claim precedence.

Ipecac. has no equal when rich cake, orange peel, raisins and similar indigestibles are the exciting cause.

I. Frequently repeated attacks have generally hitherto suggested artem. vulg. But our repertory adds several more, thus enhancing the value of the symptom.

K. The ethers, and several of the carbons (ether, ether chloric, carb. ox., carboneum; also benz. nitr.) produce a series of phenomena, deserving of close study.

Carb. ox., briefly: unconscious, head back, arms extended, spasms of cervical muscles, clonic, then tetanic; worse if touched or spoken to.

Carboneum, spasm from tongue down to lungs, thence to stomach, arms, legs. Tonic and clonic, hands closed afterwards, with great weakness.

Benz. nitr., falls, unconscious, livid face, staring, jaws locked, tetanus; better if dashed with cold water; followed by deep coma.

Chloric ether, epileptic spasms with great difficulty of breathing and unconsciousness. (See chloroform.)

The nitro-benzine is very similar to hydrocyanic acid. The ethers compare well with opium in apoplectic cases. These with the carbons represent cases in which aeration is seriously impaired. Compare ant. tart., amm. carb., opium, carbo. veg. (latter when attack is followed by collapse), hyosc., juniperus virg., œnanthe, camphor, etc.

Juniperus virg., stupor with the convulsions, heavy, stertorous breathing after attacks, apoplectic. During the spasm, breathing nearly suppressed.

If the difficult breathing arises from a spasmodic state of the respiratory muscles, compare strychnine, coccul., nux vom., ignatia., mosch., stram., hyosc., cedron, cuprum, lauroc., hydroc. ac., etc.

If it arises from disproportionately severe spasm of the throat: bella., coral, rub., laches., hyosc., coccul., gelsem., cupr., stram., naja, opium, mosch., strych., etc.

L. Epileptiform spasms sometimes have a uræmic origin. The choice then lies chiefly among cuprum, arsenic, hydroc. ac., opium, arg. nitr., calc. ars., plumb.

M. Sometimes epilepsy begins as a tic-douloureux; then compare: china, chin. ars., arsenic, cedron, atropine, spigelia, bella., arg. nitr., caust.

N. Again, it may take the form of an acute delirium, when the following should be consulted: absinth., bella., agaric., hyosc., stram., cannab. ind., kali brom., actea rac. (in females, or after alcohol), cuprum, plumb., etc.

O. Epilepsy may be associated with mental weakness, paralysis, etc. Here we may look to: secale, calc. ostr., plumb., absinth., lycopod., for the mind, and plumb., secale, caust., cupr., arsenic, nux vom., for paralysis.

P. Hydrastis is mentioned in the list, simply because it is recommended for the acne which sometimes follows the use of bromide of potassium. (See Laurie's Domestic Medicine, Gutteridge's edition.)

Q. Agaricus has a copious and well defined symptomatology, but it disappoints unless carefully selected according to its peculiar genius. It bears some resemblance to belladonna, and follows the latter well. But its spasmodic symptoms are more choreic than epileptic. In cerebral affections it acts well for garrulity, starting out of sleep, rolling of the head, grinding the teeth, etc., after the congestion has been diminished by belladonna.

When it is to be given in epilepsy, it is most certainly selected by the following group: sensitive spine; an *aura like ice-cold water spreads from the spine; spasms or twitching of the eye-lids;* itching of the skin, *a sensation like that present in frost-bite.* It may be indicated during dentition (after bella.) and also from suppressed eruptions.

R. On the authority of Dr. W. H. Hull, we give the following, produced in a boy, who ate the red berries of the jasminum officinale. This white jessamine seems as virulent as its similar in name, the yellow jessamine, or gelsemium. Botanically, however, the two plants are quite diverse.

Opisthotonic spasm, surface congested almost black; jaws fixed; relieved by a bath: comatose.

The flowers of this plant yield a deliciously fragrant oil, which is used as a perfume, and also in Italy externally in the treatment of rheumatism. Whether the berry is uniformly so poisonous and

capable of inducing such severe spasms, remains for further inquiry.

S. Several of the araceæ have caused convulsions. Hering in his Guiding Symptoms, accredits caladium with: tremors and fear of having an epileptic attack. Arum mac. has caused horrible convulsions, swelling of the tongue. (See Resources of Southern Fields and Forests.) And Hering attributes convulsions to arum triph.: spasms of arms, thumbs drawn in. Quite possibly such symptoms may arise during the course of blood-poisoning with the characteristic mouth and nose symptoms of arum; but they have no resemblance to epilepsy.

T. Hering in his Guiding Symptoms, quotes several symptoms of epilepsy from two patients purported to have been cured with asterias rubens. As they do not agree with the symptoms of the provings, we have omitted them in the repertory. Asterias, it is true, causes a headache similar to that recorded as preceding the epilepsy. The symptom reads: severe pressive pain at the forehead, seeming to crush the eyes by a very heavy weight (compare Guiding Symp., vol. ii., p. 235). But the other symptoms are purely clinical, without offering any similarity with the action of the drug, so far as proved.

Since, however, the ancients held the drug in high esteem as an anti-epileptic, it may be retained in our table of remedies.

U. Oleum cajup., oleum jecoris and sumbul are mentioned by Hale. (See Therapeutics of New Remedies, 5th edition.) They all await confirmation.

V. Anagallis arvensis has, it is stated, cured epilepsy. It has caused excitement of the mind, joyousness. Trembling, like shivering, trembling of the heart, etc. It appears to be similar to coffea. Orfila asserts that three drachms of an extract killed a dog. The post-mortem revealed marked inflammation of the bowels.

W. Carbolic acid, according to some, causes convulsions of spinal origin; but others claim that they originate at the base of the brain and are epileptiform. We find: unconsciousness, pale face or leaden hue; eyes fixed, pupils large, or contracted, biting of the tongue; stertor; trismus. Congestive headache, *feels as if a band was tied around the head; worse across the forehead.* One prover was seized with faintness and distress at the stomach, then

came a fullness of the head, as if inflated. Another fell suddenly, unconscious, as if in a fit. Cold sweat on the face; convulsive twitchings, jaws locked. Sometimes convulsions precede collapse.

Possibly the acid may prove useful in uræmic spasms. Headache preceding the attack will help in the choice.

Possibly, too, carbolic acid may suit in spasms of a septic origin; as also in ulcerated burns. Compare canth., ars., carbo. veg., bufo. The latter cured epileptiform convulsions following varioloid; the patient had peritonitis. (See Raue's Record, 1872.) We relieved a patient of spasms who was suffering likewise from suppurating blisters on the skin and mucous membranes.

X. Indigo has a meagre clinical record. It is discarded by allopathic writers. Still, cases are reported by Drs. Kenyon and Neidhard.

Roth and Von Stahly report its effects on epileptics: spasmodic pulse; subsultus tendinum like strychnine. (See, further, Teste's Mat. Med.) Provers noticed jerking above eyelids; warm undulation from below upwards in head, succeeded by a strumming. Head feels as if bandaged around the forehead. Titillation in face, succeeded by drawing in temples. Pricking as from large needles. Twitching one side of lower lip, of head, carotids, face, etc. Heat of the head, nose bleed, restless at nights with heat, increased urine and itching of limbs. Tightness of chest. Nervous irritation. Soles painful, feel as if tendons were shorter. Shocks.

In Dr. Neidhard's cure, there were spinal irritation, lightness of head (congestive, if the provings are correct), prickling, *dizziness*, expectoration of yellow mucus in the morning—all in keeping with the provings.

Y. Menyanthes relieves spasmodic startings of the outstretched leg, while sitting. Neuralgia, with over-sensitive nerves, tearing, jerking pains. Downward pressure on the head, better from hard pressure. Cold, especially toes, finger-tips, end of nose, etc. Flatulency. Its choice, then, depends more upon general effects than upon definite epileptic symptoms.

Z. Drosera is stated to have cured a case of epilepsy. The provings refer to spasmodic contractions of the joints, constrictive pain in hypochondria; throat becomes constricted with every

word; palate in constant motion, etc.; but there seems to be no evidence of adaptation to epilepsy. None of the recent works on materia medica allude to it in this connection.

Still, if whooping cough were to develop the spasms, drosera might be the very remedy needed.

E. A. Farrington, M.D.

Appendix:—Clinical Cases.—Case 1.—Epilepsy—grand mal cured.—In the year 1861, when I lived and practiced in a large town near Philadelphia, I was hurriedly called one day, to see a man, who, while working in my neighbor's garden, had "fallen in a fit." I hastened to the spot, next door to my own house, and there found a man in the throes of epileptic seizure. I made him as comfortable as possible, and in a few moments the attack passed off, the patient going into a heavy sleep, from which he awakened in two hours, and resumed his work in the garden, as though nothing had happened. From this time on he came under my care for homœopathic treatment, as, he said, he had tried about everything else.

Martin J., aet. 32, epileptic since the age of puberty. The paroxysms gradually becoming more frequent and more severe; the subsequent coma gradually becoming more prolonged and profound; so that now he had a paroxysm every two or three weeks, never a longer interval than a month, with more frequent attacks if any mental emotion as fright, grief, etc., acted upon him, or when obliged to work much harder than usual. There was nothing unusual in the symptoms of his seizures,—only the ordinary phenomena pertaining to an attack of epilepsy. I gave him a number of medicines, with apparently little or no effect, including nux vom., bell., bromide of potassium, and other drugs.

After he had been under treatment for several months, I began to get his history from himself and his relatives. I found in this connection, a history of a suppressed eruption, believed to be scabies, suppressed when he was a child by means of ointments and baths. This led me, in consequence of some hints from Rückert's Therapeutics, to give him silicea, 6th dilution, a dose three or four times a day. This was continued for some time,

with a slight benefit, notably, the paroxysms never came oftener than once a month, unless brought on by some extraordinary exciting cause, such as referred to above, and the sleep following an attack, lasted a shorter time. I learned, however, from this man's brother, that he was a confirmed masturbator, and from himself that he was troubled with spermatorrhœa. I got him to abandon his pernicious habit, by talking to him about its consequences, etc., and the spermatorrhœa was cured in less than a year, by china, phos. ac. and selenium. While taking these medicines, however, he also took a dose of silicea, every night. At the end of three years of treatment, during all of which time he continued the silicea, with gradually lengthening intervals (sometimes but one dose in a week) with slow but steady improvement. When six months had passed without an attack, I abandoned treatment, or he abandoned his physician, and he remained entirely free from epilepsy and has done so ever since. I saw this man within a year, and he is well in all ways, and has almost forgotten that he ever had "fits." This, it seems to me, was a cure of epilepsy from "suppression of a cutaneous eruption," with silicea, and confirms previous observations made regarding it, by Rückert, Bœnninghausen and perhaps others.

Case 2.—Epilepsy, tænia, cured.—In 1872, I had brought to my attention the case of James R. K., a young man about 22 years of age, who had been subject to epileptic fits for five or six years. He had the usual epileptic seizure, with ordinary symptoms, the attacks passing away without the supervention of coma, and were followed only by debility, languor and some frontal headache; all of which symptoms would pass away within a day, and he would be in his usual good health. The seizures came on at irregular intervals ranging from three to seven weeks; rarely going two months without an attack. He had on several occasions injured himself severely while convulsed, or by falling into the fire. I treated this young man who came to my office during several months, and received various medicaments for his ailments, such as belladonna, bufo rana, causticum, hydrocyanic acid, and nux vomica, without any improvement, except that a slight improvement seemed to follow the use of nux vomica. I finally began to suspect the presence of worms,

more particularly tape-worm, from the following symptoms, which he had: A very variable and capricious appetite, sometimes to an almost complete anorexia, at others to bulimy; sudden attacks of colic, attended with retching and vomiting; irregularity of the bowels, alternation of constipation and diarrhœa; a pretty constant pain in the region of the umbilicus, together with a variety of strange sensations in the abdomen; itching of the anus, and picking at the nose; restless sleep; œdema of the eyelids; flashes and sparks before the eyes; a feeling of constriction in the throat. All these symptoms led me to get him to examine his stools, and this soon led to the finding of segments of a tape-worm.

I then gave him cina, santonine, and nux vomica for some two or three months longer, but without perceptible good effect. Finally, I gave him the following prescription:

℞ Rottleræ ʒ j
Oleo Resinæ Filicis f ʒ ss.
Mucilag. Acaciæ
Syrupi aurantii āā f ℥ i j. Misce.

Sig.: One-half to be taken at bed time, and the remainder the next evening—the patient fasting ten or twelve hours before. Should it not operate sufficiently, a dose of castor oil to be given.

The first dose of this nauseating mixture was followed the next morning by the expulsion entire (head and all,) of a tænia solium, about twenty-five feet in length. (I may remark, *en passant*, that the above prescription is one by Dr. Meredith Clymer, of Philadelphia, and I got it out of Aitkens' Science and Practice of Medicine, Vol. I., p. 202, and that it has not failed me once in ten years, and I have given it to many physicians, who also have succeeded admirably with it. I have, also, always given it to my classes at the Hahnemann Medical College of Philadelphia, and have had numerous reports of successes from graduates.) The expulsion of the worm in the case now under consideration was followed in a short time with a disappearance of all symptoms, including the epileptic seizures, which have not recurred. What connections existed between the presence of the intestinal parasite and the epilepsy, I am unable to assert; but there is ground for a fair inference that they were very intimate, in fact

as intimate as cause and effects, and that the case was one of those numerous cases of *sublata causa tollitur effectus.*

I have, as a matter of course, in twenty-five years' practice, treated a number of cases of epilepsy, both grand mal and petit mal, with various results. In a few cases satisfactory curative results have been obtained, in others palliation of the symptoms and conditions, while in others no good results have followed. I may mention the remedies I have most frequently used, as follows: Belladonna, bufo rana, calcarea carb., causticum, cuprum aceticum, gelsemium, hydrocyanic acid, ignatia, nux vomica, silicea, sulphur, zincum metallicum.

Bromide of potassium I can only mention to condemn. I have never cured a case of epilepsy with it, although I have used it in all doses, from a few grains daily, up to doses that would be heroic in the hands of an old-school practitioner. While I have seen its use followed in many cases by a mitigation of symptoms, yet the necessity of constantly increasing the dose to preserve the ground gained, bars it out as a remedy. I have not used it in a single case, I believe, in ten or fifteen years, and believe I have obtained better results since I abandoned its use.

Gelsemium, I used very successfully in one case of epilepsy which I shall not attempt to report in full, since my notes are brief and imperfect. The case was that of a lad of seventeen years, who had epilepsy for about a year, it was believed as a result of a great fright in a railway accident, in which he saw several persons killed. He had frequent attacks, at least once a week and sometimes twice or thrice weekly, or even oftener. In addition to the symptoms of an ordinary attack of haut mal, he had an aura epileptica in the shape of green vision; every thing looked green to him before the attack, and warned him of its approach. Owing to this, I gave him gelsemium, a dose of the tincture twice or thrice daily, two or three drops at a dose, which effected a cure in five months; and there has been no recurrence after a lapse of three years.

R. J. McClatchey, M.D.

Case 3.—A girl of 13 years, epileptic to imbecility; sitting constantly in an arm-chair, with vacant face, open mouth, constant

drooling; often had four or five fits per day. Medication did nothing. I noticed that her teeth were very bad, with general decay and unhealthy gums. I prescribed a complete overhauling of the teeth by a dentist, which was done, and within a short time it was reported that the fits were reduced to about one per week. I cannot positively say whether or not any drugs were used, but think not.

CASE 4.—A man of 25 years consulted me immediately after the civil war. He had his first spasm two weeks before calling on me. He had four or five paroxysms in that time. Inquiring for causes, I learned that he had been a soldier at the siege of Petersburg, and had been shot by the enemy in the arm while loading his own piece, and that the bullet had lodged somewhere in the neighborhood of the spine, but had not been discovered. I found it just to the right of the sixth cervical vertebra, and cut it out. He never had another spasm.

CASE 5 was not a typical one; but having been wounded in the popliteal space, became subject to "spells." An allopathic surgeon stretched the nerve, and he was relieved for a few months. Later, a homœopathic surgeon operated on him. The popliteal vein was engaged in a dense cicatrix; it was accidentally wounded and was tied above and below the cicatrix; the nerve was not entangled, as was proved by a gentle stretching by myself. The wound healed; stramon. was given, and a cure was recorded some months later.

CASE 6.—A delicate, but extremely vivacious young lady of 17 years, had frequent "spells," sometimes at night; occasionally severe spasms. Indigestion, especially after eating vegetables, fruit, etc.; sighing; goneness in the pit of the stomach, frequently, and especially as a warning of the spells. These came very often in consequence of over-strain of spirits in society, or of the eyes, in practising her music, etc. Her vision seemed myopic, but convex glasses helped her most, and were carefully prescribed. Eggs and milk were used night and morning, and at other times, for nutrition.

Ignatia[200], three times a day, for several weeks, cleared up the dyspeptic trouble; sulphur followed, then calcarea, both high, with the result of greatly lessening the frequency of the spells.

She was then obliged to take bell. as a prophylactic against scarlatina, which was in the same house. Additional care and work were entailed upon her also. After this, she was decidedly worse and lost flesh. I sent her, this summer, to a farm house to "vegetate" and keep quiet. Going for a few days to the seashore, the fatigue and excitement were followed by aggravation, and she returned to the country. She took sulphur^{cm} three times a day, with marked improvement, after which there was an aggravation. I gave her sac. lac., and she has been better ever since. She is still under treatment.

Case 7.—I was once witness of great benefit conferred by an allopath on an epileptic by pills of cannabis indica and oxide of silver.

The lesson taught us by all these cases is, that, as in all other diseases of unstable equilibrium, there are three modes of unsettlement, or of paroxysmal explosion, any one of which may operate alone, or in conjunction with another, viz.: increasedly plus irritability, not always, but often with feeble nutrition, of the convulsive centres (in the pons and medulla); plus irritation from excentric sources, (as bad teeth, or a bullet); or minus nutrition of inhibitory tracts, centric or excentric, as the cortex of the brain, (the "accessory circuit" of Wernicke)—which is the normal antagonist of the pons, etc. Not only the cortex of the brain, however, but the peripheral nerves also, possess this power normally (as witness the arrest of a paroxysm by compressing or extending an arm or the thumb), and may fail of their duty from defective nutrition. In all such cases the indication is general, and nutritive or tissue remedies (antipsorics) are indispensable, viz.: sulph., calc., sil., etc.

J. C. Morgan, M.D.

Case 8.—T. McC., aet. 33, married. Has had epilepsy since he was in the army, seventeen years ago. It was caused by fright in the first engagement of the regiment of which he was drummer boy.

He has attacks every three or four days. There is fully developed vaso-motor aura as of wind blowing on the limbs from below upward. They occur both while awake or asleep, during either night or day. If he is standing, he falls. He foams at the

mouth; every muscle jerks. He rubs his limbs when recovering. He knows and can tell when he is about to be attacked. During February and March the attacks became more frequent, as often as several each day, and he was compelled to relinquish his work in consequence. His mind became so affected that he was apparently determined to commit suicide, frequently getting up at night and going to the river for this purpose, requiring constant watching.

Kali brom.[30] was given. Improvement was steady under this remedy for two weeks, when he appeared to have regained his former condition. His mind became clear and cheerful and he was able to resume his occupation, that of keeping a market stand. He thinks he is better than for years. I, however, doubt whether he will further recover.

Case 9.—F. C., aet. 15 years. Came to me Nov. 20, 1880, for treatment for epileptiform spasms. These had commenced about a month previously while in attendance at school near her home, and had continued at irregular intervals. Her symptoms were dizziness, pain in the head; sudden seizure, falling to the floor, loss of consciousness, with subsequent ignorance of what had happened. The only other symptoms I could elicit as a guide in the selection of a remedy was, that she complained of pains in her back, great desire for and benefit from fresh, cool air, always better in the morning. She had never menstruated. Her physical condition was that of plethora; light complexion; large head; blue eyes; energetic, sanguine temperament. There was history of epilepsy in the family.

℞. Calc. carb.[30] and puls.[30], alternately, every other day for one month, with horseback riding and out-door exercise. About three weeks after commencing the medicine she had a slight spasm, the only one. Puls.[30] has been continued alone, every other day one dose. No spasms or pain in the back since. The menses have not made their appearance yet. School was resumed in a week after commencing the remedy.

Case 10.—H. C., aet. 13 years, has had well marked epilepsy since eight years of age. He had lately been under the care of a physician of this city, claiming to practice homœopathy, who said he was "treating Master Harry according to the law" with large and increasing doses of bromide of potassium. His father

in November and December informed me, when his daughter Frances (the preceding case) showed such marked improvement, that he wanted me to treat the boy. I, however, not knowing the treatment he was receiving, steadily refused, making as an excuse that his physician was a recognized homœopathic practitioner, and I would likely have to go over much of the same ground. To this Mr. C. replied that the medicines were too strong and not like mine, exhibiting the drugs. The doctor had agreed, previous to July, 1880, to cure his son in three months. Six months had about elapsed and the boy grew rapidly worse. I, however, persistently declined, until January 22d, 1881, when he called and said he had dismissed the doctor, the boy having had forty-five attacks the previous day, and that he was compelled to keep his hired man constantly watching him, fearing he might do himself bodily harm. I must, therefore, give him medicine. I confess I felt it to be a hopeless case, but concluded to prescribe. This boy had also received treatment from several prominent allopathic practitioners with no end of patent nostrums.

His symptoms were well marked. The aura epileptica as of water running up the limbs; dizziness, at times falling; foaming at mouth; clenched fists; spasms of pharynx; constant swallowing when becoming conscious and clutching at the first object presenting. The attacks returned after the slightest excitement or vexation. Sometimes the fit would be only partial. He would then stop and stare vacantly. Again, he would clap his hand over his mouth and make peculiar sounds; would run wildly about, apparently without object; imaginary beings ever present to his fancy. Mentally he was dull and stupid for some time after the attacks. His mind was rapidly failing. These attacks numbered from ten to twenty daily, for years, and, as before stated, the day previous he had been attacked forty-five times. There was history of epilepsy in the family with death resulting.

The boy was well formed, with a large head, and previous to the first attack was in robust health, which continued until recently, when he was becoming emaciated. No assignable cause could be given for the first attack. They thought he had had numerous slight attacks before they were noticed by any of the

family, and that it might have resulted from fright when quite young.

January 22d. I gave calc. c.[30]. January 23. There were but three attacks. January 24th. Two attacks. January 25th. One attack; and since that date no fully developed attack. In February he had symptoms of an attack several times. He then received several doses of calcarea carb.[6m], which has been continued at intervals since, without any symptom of return of the malady.

This boy has had no medicine for three months, and his father within ten days of this meeting has reported him doing a full man's work on the farm, having gained flesh rapidly and developing fully, both mentally and physically.

H. Pitcairn, M.D.

Case 11.—T. L., of Bridgeton, N. J., aet. 48, a shoemaker by trade, who was below medium stature, being but five feet tall, and corpulent, came to me for treatment. His head was large, neck short, hair black, complexion dark, very active and quick-motioned and zealous in his business, an early riser and constant worker, without bad habits, such as drinking, licentiousness, etc., and of calm, quiet temperament. In the summer of 1869 repeated epileptic attacks set in, which usually came on entirely unexpected and even on the street, so that he fell down insensible in an attack almost without warning. He did not know of any special cause of his malady.

He consulted me on October 16th, 1879, presenting the following symptoms: Dizziness (epileptic vertigo), and headache, which usually commenced in the nape of the neck; profuse sweat on the head; his hat caused an uncomfortable pressure as soon as he put it on; profuse foot-sweat, making the toes sore; either constipation with very hard stool or stool too soft and frequent (he was more inclined to diarrhœa), with difficulty of voiding it; fœces and flatus have an unusually fœtid smell; he is very hasty; distention of the abdomen after eating. Occasionally he has nausea, and numbness of the extremities, particularly of the arms. The convulsions during the attacks last a little while and are followed by a short sleep.

October 16th. ℞ Sil.[2c], morning and evening for six days.

October 29th. Had no attack since October 16th, and the headache and vertigo have disappeared. ℞ Sil.^{2m}, morning and evening. To report in two weeks.

At the present writing, August 1st, 1881, there has been no recurrence of the malady.

G. E. Gramm, M.D.

There are two remedies which have seemed to render especial benefit in two of the most prominent cases I have treated.

Case 12.—One of the patients was a stout boy, rather large for his age, who had been carefully reared. At about the age of puberty, he was suddenly seized with a spasm, which, from descriptions, was at once pronounced epileptic. These were frequently repeated, and while I never saw him in one, there is no question about the diagnosis. I treated him for some months, when he passed under the care of Dr. Hering, who treated him, I think, for a year or more without especial benefit. The patient was then again brought to me. At this time, kali brom.^{30} was prescribed. After a time improvement set in, and at one period he went a little over three months without having a paroxysm, but alas! the remedy in other potencies, and lower, would do no more; neither was I able to render any further service. The patient was placed under the noted Brown-Sequard, without benefit. At last, falling under the care of a devotee of the valuable but much abused kali brom. in massive doses, the boy, at about the age of 19 years, was literally besotted by the medicine and died.

Case 13.—The second case worthy of note is that of a young married man. While acting as conductor on a street car one year ago this summer, he was placed under great excitement by some disorderly passengers, and while much heated by the warm weather (the day being hot) and the excitement besides, he experienced a slight "spell" of something. At intervals of a month or so nervous tremors would appear, and he would partially lose consciousness. The past winter he came under my care. (The family, however, had been patients of mine from his early boyhood, and nothing of this had manifested itself during his development.) I found at that time that he was developing a regular train of epileptic spasms, although they were not severe, but regular and

persistent. The epileptic aura was present, preceding an attack, and a paralytic feeling down the left arm, heat in the head, and redness or paleness of the face, more or less pain in the head, most in the frontal region. Belladonna was the remedy most frequently prescribed, but there were others used from time to time, (gels., ign., cup., cimicif.), but I have used bell. whenever possible to do so. This patient has taken for some time past bell.[2c], and is improving.

A period of over four months is the longest time he has passed without a recurrence, but this favorable intermission is being repeated, and I look for the intervals to be lengthened, although I may be disappointed.

C. S. Middleton, M.D.

Case 14.—Lizzie T., aet. 21 years, was brought to my office May 28th, 1877, to be treated for the "falling sickness," as she denominated her disease. Inquiry brought out the following history: Her first attack occurred some five years ago, or at the age of sixteen, following a severe castigation by her father for some offence. Since that time, up to the time of consultation, she has never been longer than two or three months without an attack, and would sometimes have two or three attacks in a month. An attack seemed to be brought on by any fright, or by dancing, overwork, becoming overheated, or if from any cause the menses became delayed or suppressed. Her last attack, three days before coming to me, came on in bed and followed her attendance at a ball at which she danced. An attack was described as follows: first, there is a roaring sound in the head, thinks she hears voices or bees, imagines she can see insects coming toward her, then she has a wave-like sensation coming up from her feet, she gives a loud scream and falls, seeing and hearing nothing more. Her eyes roll and are encircled by blue rings. She froths at the mouth, the thumbs are drawn into the palms and the fists tightly clenched, and the entire body rigid. After the attack she is very weak, the appetite for some days will be poor, with increased thirst, and sometimes an increase in the discharge of urine.

I prescribed cuprum met.[30], a powder to be taken every night. Strict orders were given for her to refrain from everything tending to produce excitement or exhaustion.

In a month she reported that she had not had a fit since commencing the medicine, that she had changed and thought she felt stronger in her nerves. Cuprum met.[30], a dose per day was continued.

It is now more than four years since this patient commenced taking cuprum, and in all that time she has not had an attack of epilepsy. She now does hard work, and sometimes goes to balls and pic-nics. If she feels "queer," as she calls it, she calls for medicine, and invariably cuprum restores her equilibrium.

I offer this case without comment, further than to say that for a period of five years previous to homœopathic treatment, she was never, for any considerable length of time, free from these epileptic attacks. During this time she had tried many physicians, regular and irregular, patent nostrums by the peck, prayers, charms, etc., etc., while for nearly an equal period, since coming under homœopathic treatment, she has never had an attack, and the longer she is free the less she fears them.

W. J. Martin, M.D.

Case 15.—A lady who had been subject to epileptic attacks amounting to grand mal for several years. She had been married nine years but had no children. She was worse at the time of her catamenia. The attacks were severe. She was under treatment for several months and finally cured. The remedies most used in her case were cimicif.[3], and lastly, phos.[6], which seemed to do most for her. The attacks ceased and within a year she became pregnant. There was no return two years afterwards, which was the last time I heard from her, as she had moved out of our neighborhood.

Another case commenced in petit mal, but soon ran into fully developed attacks of epilepsy, which were for a time checked by ignatia, but in the course of months returned, but with not so great violence, and ignatia would not check them again.

J. E. Jones, M.D.

Case 16.—Miss S., aet. 22, single; nervo-bilious temperament, dark hair and eyes, had been afflicted with epilepsy since the age of seventeen. She had been treated by a number of physicians

without the least benefit. She came to me in October, 1878. The fits came, regularly, every two weeks, always during the afternoon and never at noon or night. She had dysmenorrhœa and anteversion of the uterus. I gave her cimicif., puls., bell., etc., with good results as regards the uterine disorder, but without any effect on the spasms. I gave cuprum for a while with some amelioration. Noticing the regularity with which the seizures occurred, I found that they came at the new and full moons, and gave silicea[30], with slight improvement, as she passed over one period. I continued sil.[30], but without any further results. I gave the 12th but with no effect. Gave æthusa and she had fits every week. Under macrotin, the fits resumed their fortnightly regularity. This was in February, 1879. In May, 1879, I gave three powders of silicea[6m], one to be taken each morning, beginning three days before the expected paroxysm. The result was, that instead of having two or three spasms, as usual, she had six, each very severe, but never had another until she passed from my charge, October, 1880, after her marriage.

The low potencies did not have any curative effect whatever.

Wm. Peach, M.D.

Case 17.—Mrs. H., aged 69 years, has had epilepsy about twenty-five years. She has always enjoyed good health, and is the mother of seven children. During the first part of her life, up to the climacteric period, she was quite lean; but since that is rather lusty. In the family history on the paternal side, there is a hereditary tendency to insanity. She has one brother who has been an imbecile from infancy.

The paroxysms were at first slight, but gradually grew worse and more frequent. There is no exciting cause known. They come without any aura, and are as frequent at night as they are during the day. She has to be kept constantly under watch for fear of getting hurt. At times she is very restless, walking about, looking out of the window, etc., and at other times quiet and contented. She has become somewhat demented. The paroxysms commence with tonic and terminate with clonic spasms, and last from two to five minutes. During the fit she is entirely unconscious, but consciousness soon returns after the fit is over. She

has been treated by various physicians, but without receiving any benefit. I was called on the 3d of last February to treat her for a cold. Having considerable fever, I prescribed acon. I also left some powders of cup. acet. 3d trit. for the fits; a powder to be give every night. The effect was so marked that the treatment was continued; a powder of cup. acet. 3d every night, with sac. lac. during the day.

February 28th. She was much improved, and treatment was continued.

March 13th. The patient still continues better. Treatment the same.

April 14th. The patient continues to improve; only has a paroxysm occasionally. The same treatment continued.

May 8th. Has had no paroxysms since April. Prescribed cup. met. 6th trit., a powder every night.

May 28th. There has been no return of the fits. Cup. met.[6] continued.

June 21st. The patient still continues free from fits. The treatment stopped for a while.

July 16th. The patient had three or four paroxysms lately. Returned to the last prescription again.

August 6th. The patient is better; has had no paroxysms since last report. The same treatment continued.

August 24th. There has been no return of the convulsions. The treatment continued. The restlessness and state of mind remains unchanged. She is still under treatment.

Case 18.—Miss S., aged 16 years, has always been healthy. She is very large and fleshy. The family history, reported by the parents, is good. She has been affected with epilepsy for nine years. The seizures at first were slight. The symptoms corresponded to what has been designated "petit mal." The first attack was noticed when she was about seven years of age. She was sitting on the floor, near the foot of the stair-way, when she suddenly grew pale, her eyes assumed a vacant stare, and she appeared to be unconscious. These paroxysms gradually came on more frequently until at eight years of age she had convulsions (grand mal). Before the attack comes on, she has an aura which she describes as a large ball attached to a string suspended in the

hypogastric region. The ball gradually ascends till it reaches the middle of the sternum, when she becomes unconscious and goes into a severe convulsion, which lasts several minutes. At the age of thirteen the catamenia appeared without making any change in the fits. The menses were very dark and offensive. At fourteen the fits ceased for nearly a year, and the menses assumed a more natural appearance. She and her sister were away on a visit, and on returning home, were caught in a rain and were completely drenched. Soon after this, the convulsions returned, and the menses became dark and offensive. Lately she complains of a prickling, numb feeling in her arms and legs. She cannot walk without assistance, and is becoming quite helpless. Her mind is becoming affected. The fits are coming more frequently, she having now from ten to twenty during the day, and as many during the night.

Up to this date, June 28th, 1881, she has been taking, during the last year, large doses of bromide of potash. I prescribed cup. acet. 3d trit., a powder every night, with sac. lac. twice a day.

July 8th. The paroxysms have ceased during the day, but she has them between the hours of ten and one at night, and very severe. Prescribed cup. met. 6th trit., a powder every night.

July 21st. The patient is a great deal better. The paroxysms are lighter and not so frequent, but occur at the same time. The same treatment continued.

August 3d. The patient still improving in every respect. She can walk about the house without assistance. Her courses are more natural. The treatment still continued.

August 30th. She has not had a fit for three weeks. She is feeling better every way and is going about helping to do light house work. The same treatment continued; a powder of cup. met. 6th trit., every night.

This patient will continue under treatment.

ANONYMOUS.

CASE 19.—January 10, 1875, was called to see Mary M., age 12 years. Three and a half years previous, after a long walk under a hot sun, she had a fit. Since then she has had them at variable intervals of from two or three fits in the twenty-four

hours, to one in three or four weeks. She has for some time had them two or three every day. She has no bad feelings, appetite good, digestion good; her parents say she is not as bright as before the fits occurred so frequently. She has been attended by the various allopathic physicians of the town, and has steadily grown worse. I decided to place her on bromide of potassium, and gave her two grains three times a day. Jan. 29. Reports only one fit since commencing the treatment. Feb. 20. Had two fits two days in succession ten days ago, but none since. The dose was increased to three grains. Mar. 9. Had one fit since last report. Treatment continued. April 15. Improving; no fit since last report. Dose increased to five grains. May 17. Same report. June 30. Same report. Dose increased to eight grains. July 20. Same report. Aug. 23. The same. Sept. 14. Was struck on the back of the head at school yesterday, which caused her to have one fit. Nov. 12. No fits since last report. Jan. 18, 1876. Same report. Mar. 3. Same report. A few months after the last report the family moved away. I heard from her about a year after, and there had been no return of the fits, and she was enjoying good health; her mind had also regained its former vigor.

E. D. Doolittle, M.D.

The most important remedies for the permanent cure of epilepsy are calc. carb., calc. phos., calc. ars. and caust. In many cases kali brom. and amm. brom. have been of great service to me, particularly when the family history and careful examination of the patients indicated a tubercular diathesis, established either in lungs or brain. In other cases, however, permanent cures were effected with arg. nitric., indigo, atropine, silica, ignatia and cuprum.

Case 20.—An inveterate, incurable case of epilepsy was relieved of the following symptoms with calc. carb.[6 and 12]: palpitation of the heart, heartburn, constipation, defective memory, leucorrhœa, with pruritus, throbbing pain in forehead, vertex and temples.

Case 21.—Emma W., aet. 5, had epileptic attacks for four years. Before the seizure, pain at root of nose, then screams, with convulsed eyes, loss of consciousness for five minutes. After the attack, like a chill with pain in pit of stomach to the spine, drowsiness, cold hands. Calc. carb. cured.

CASE 22.—Another patient after calc. carb.[3] was so far relieved that he no longer foamed at the mouth or lost consciousness.

CASE 23.—Still another received calc. carb.[3] for clonic spasms, foaming at the mouth and violent pain in the head. The latter symptom was so aggravated that I gave him the [10th] and later the [2c]. His attacks formerly came every three months, but after the lime, he escaped a year and nine months.

CASE 24.—Two epileptic boys, who were always seized during sleep, were permanently cured with calc. carb.[3 and 6], one prescription each.

CASE 25.—An epileptic, in 1859, had as many as eight attacks in two weeks. Slight attacks were introduced with an aura from the stomach; severe ones, with falling. With the aura was a gnawing at the pit of the stomach. Calc. carb.[6] in the evening, and ignatia, cured.

CASE 26.—Miss W. was cured by calc. carb. 1st trit., with the following symptoms: after the attack, feeling in the vertex as if it was open; greenish vomiting; craving of food; lameness in the sacral region.

CASE 27.—Edgar D., aet. 12, had nine attacks a day. After caustic[1] and calc. phos., they were reduced to one.

Loss of consciousness; throbbing and burning in the "organ of self esteem," with pain in the back, sick stomach, craving appetite. Attacks appear during full moon, and in last quarter. After calc. phos. a scaly eruption appeared and the attacks ceased.

CASE 28.—Calc. phos.[2] in alternation with cuprum acet.[1] cured: tonic epileptic spasms; pushes the head back, with foaming at the mouth and vomiting; brown discharges from the bowels, smelling foul; forehead and fingers cold before the attack.

Epileptic seizures every three months, dating from dentition. Clonic spasms, left sided, with diarrhœa and voracious appetite; loss of consciousness, falls on the face; sleeps afterwards. Sometimes two attacks daily. Everything she eats brings them on. Zinc met.[3] relieved, but calc. phos.[2x] cured.

CASE 29.—Epileptic aura arises from the heart; pressure and throbbing in the vertex, extending to the temples; beating in the anus, with griping in the bowels, and constipation. Arsenite of lime[5] cured.

Another patient with heart disease was benefited by calc. ars., but was finally lost sight of.

CASE 30.—Mrs. P. Epilepsy proceeding from the heart; spells commence with pain in the back of the head; flushes of heat in the left side to the chest, relieved by profuse sweat; menses too frequent. Calc. ars.[6] cured.

CASE 31.—James ——, aet. 8, aura from stomach. Paroxysms as often as twice a day, though sometimes he had none for a week. Voracious, craving appetite; left hand reversed; stamps with the left foot up and down. Calc. ars. 5th trit. cured.

CASE 32.—Harry C., falls asleep three or four times a day for five minutes, then acts as if insane; aching pain in forehead and vertex, also in dorsal vertebræ, passing to the front; urine involuntary. Kali brom.[3] benefited, calc. ars.[6] cured.

CASE 33.—An epileptic who did not foam at the mouth, but who suffered from headache after the attacks, and whose menses were deficient, with prolapsus uteri, was cured with kali brom. and atropine[2], and this despite the fact that her father, mother and grand-father had suffered from the same disease.

Epilepsy from tuberculosis is often relieved, at least for a time, by kali brom.

CASE 34.—H. G. S., had attacks at the new moon, regularly at 2 A. M. Nausea, trembling in the bowels; eyes staring and wide open; jerking of the left foot and then of the arms; then deep sleep; complete unconsciousness, but no foaming at the mouth; urine involuntary. Kali brom., one-fourth of a grain, cured.

CASE 35.—Mr. ——, aet. 65, has had epilepsy for ten years. Kali brom., two ounces in a pint of water, and two teaspoonfuls after each meal, postponed the attacks from weekly to monthly, and finally, two years. He is now over eighty, and enjoys excellent health.

CASE 36.—J. ——, aet. 22. Epilepsy before the menses, which are profuse, with cold chills. Artemisia vulg.[1] cured.

CASE 37.—Kate M., aet. 14. Clonic spasms during menses, a dozen attacks each lasting five minutes, with loss of consciousness. Nervous, fond of reading, with aching on the vertex; craving appetite; menses black as tar. Artem. vulg. cured.

CASE 38.—Falls forward, loss of consciousness, frothing at the

mouth; appears as if dead for twenty minutes. Thrice daily. Also, eructations of wind, constipation. Chews moderately, drinks rarely. Is a hard working man. Arg. nit.[3] cured in six months.

CASE 39.—Arg. nitr.[1 and 2] cured a patient who suffered when he took exercise. Palpitation of the heart with violent excitement; no appetite; costive.

CASE 40.—M. ——, aet. 6. Epilepsy for three years, caused by a sunstroke. Tonic spasms, loss of consciousness, worse from change of weather. Before the attack, spasmodic pain in the stomach; after it, headache, spells of wildness and madness, after which he loses his breath, and his hands and feet get cold. Petroleum cured.

CASE 41.—Miss B. Epilepsy once a month, after being overheated. Foams at the mouth; spasms left sided; head feels large; face purple. Paroxysms return after any excitement. Menses regular; leucorrhœa. Arg. nit. and calc. ars. relieved, but atropine[3x] cured.

CASE 42.—B. B., aet. 23, has had epilepsy for three years. Aura seems to arise from between the shoulders, where there is a painful spot. For two months attacks returned every day. There were also present: tightness from forehead to occiput, heat in the throat, and sharp pain in the liver, which is sore to touch. This she had had for five years. Giddiness at all times, but worse before an attack. Soreness all down the spine, expectoration of yellow mucus in the morning, pricking in the fingers as from pins or needles, costive, inward fever. Indigo[5 and 200], repeated six times, cured.

C. NEIDHARD, M.D.

EPILEPSY: CEREBRO-SPINAL NEUROSIS.

BY EDUARDO FORNIAS, M.D., PHILADELPHIA.

(Presented through the Philadelphia County Society.)

Definition. — This convulsive neurosis is characterized by intermittent attacks, with complete and sudden loss of consciousness, depending, according to some authors, upon spasm affecting the vessels of the pia mater, without which no convulsion, how-

ever severe, should be regarded as epileptic. It pursues a chronic course and is accompanied with debility, perversion and sometimes extinction of the intellectual power.

Causes.—In this, more than in any other nervous affection, psora has an especial influence, favored of course by weakness of constitution and a certain predisposition. Hence, we frequently see this neurosis attacking persons who have suffered from retrocession of an exanthem, and witness the beneficent results of the administration of antipsoric remedies. Malformations of the head are said to be frequent predisposing causes. It is common in women and especially during puberty. It prefers early life, and undoubtedly dentition and catamenial derangements predispose to its evolution. Among the occasional causes, we may mention fright and fear, especially during sleep or at the catamenial period; also, in less degree, grief, worry and anger. Debauchery, alcoholic drinks, venereal excesses, masturbation, blows upon the head and other injuries, insolation, intestinal worms, and insanity, have been counted among its causes. Mental overwork is perhaps second in importance.

Schrœder van der Kolk gives as the first cause of epilepsy, an exalted sensibility and excitability of the medulla oblongata, rendering it liable when irritated, to discharge its force in involuntary reflex movements. This irritation may be external, through the 5th pair of nerves, or it may arise from the brain or even from the intestines.

Pathology.—In describing this disease we might omit its pathology, as indeed many authors do, since epilepsy does not present any marked anatomical lesions, with the exception of cerebral and pulmonary congestions due to the convulsions. None of the changes found, such as intra-cranial tumors, extravasations, meningeal alterations, hypertrophy of the brain, etc., can be considered as characteristic. But recent studies show alterations of the medulla oblongata. In the beginning of the disease a hyperæmic condition of the vessels of the medulla has been found. But if of long duration, the vessels are dilated by the repetition of the attacks and thus become a cause of cell-irritation, giving rise to plastic exudations, with induration of the vessel-walls and even of the nervous elements. The last histological

changes known, are said to be marked by a degeneration of a fatty nature.

In conformity with these ideas, let us see the explanation given by Brown-Sequard to the series of symptoms which characterizes the attack—"the epileptic convulsions correspond to the class of reflex phenomena." A psychical, peripheral or reflex irritation, acting on the medulla and par vagi, giving rise to a spasm of the blood-vessels of the brain and also of the face, with consequent paleness and loss of consciousness. The blood accumulates at the base of the brain and in the medulla, the excitement from which, throws the muscles of neck and chest into tonic convulsions. As the excitement augments, the convulsions become generally distributed, even inducing uterine spasms, erections and ejaculations of semen.

Next follows a state of general nervous exhaustion. Reflex excitability is greatly diminished. Gradually the respiratory vigor returns and the attack ends in coma.

Rosenthal, quite an authority in nervous diseases, tells us of the very few data furnished by pathological anatomy with regard to the nature of epilepsy. He attaches more importance to the following: "These experiments have been performed under the following different conditions: compression of vessels more or less remote from the brain; arterial anæmia or venous hyperæmia, and, as a consequence, epileptiform convulsions; general convulsions, produced by direct irritation of the pons and medulla; epileptiform attacks from lesion of the cord, or of certain spinal nerves, and from traumatic or electrical irritation of the encephalon; finally, irritation of the cord, by means of toxic substances, rendering the animals epileptic."

Some changes besides the above described have been observed by Kroon, Solbrig, Lélut, Delasiauve and Meynert, but very little importance can be attached to them, as they surely were casual or merely secondary.

Symptoms.—The disease may develop abruptly or gradually. Sometimes the initial symptoms are transient, fleeting; at others, they commence at once with all their intensity.

In some cases the disease manifests itself by a simple stupefaction or vertigo, in which there is a suspension of the intelli-

gence and volition; or by trifling distractions, during which the senses appear insensible to all impressions, without perturbation of the other functions.

Typical epilepsy is characterized by disorders of intelligence, of sensation, and of motion, which in the severe cases, appear suddenly and simultaneously, and, in less severe forms, follow each other in a certain order, while the lightest attacks (petit mal) only include one order of symptoms. (Rosenthal.)

In the great majority of cases the attack is violent without premonitory symptoms; but in some others premonitions appear sooner or later. When the premonition is remote, we notice a change in the character of the patient, marked by sadness, irritability, agitation, headache, and even digestive disorders.

Proximate prodromic symptoms consist of various local sensations, known as the *aura epileptica*, which has been differently compared by patients to a stream of cold water or to a current of cold or warm air, or to the creeping of an insect. The course of the aura is ascending, and this may be explained, according to Rosenthal, by the dissemination of the central irritation from below upwards. The possibility of sometimes interrupting the attack by the ligature of a limb, may be interpreted as the effect of counter-irritation. Some authors assert that when this peculiar aura in its ascending course reaches the head, it stops, and then the paroxysm commences.

There are individuals in whom the prodromic period is characterized by a sensation of torpidity, pain or constriction in some part of the body. In others, two or three minutes before the attack, there are spectral illusions, dimness of vision, confusion of thought, perverted volition, a sense of fear or terror; the patient walks, runs without direction as an automaton; and when these phenomena are wanting or end, he falls to the ground unconscious, with a sharp, single scream (reflex spasm of the muscles of phonation and respiration).

Omitting this first peripheral manifestation of the vascular spasm called aura, which is not of constant occurrence, there are four simultaneous phenomena which indicate the real beginning of the trouble, viz.: the fall, the loss of consciousness, the change of color in the face, and the cry or scream.

The fall is instantaneous, allowing of no selection of a favorable place; the scream is unique and, as said before, is attributed to spasm of the laryngeal muscles. The loss of consciousness is equally simultaneous, volition and perception are wanting; hence, after they have recovered their calmness and consciousness, they remember nothing of past events. Notwithstanding the assertions of J. Russell Reynolds, the pallor is an important factor in this affection, revealing as it does the vascular spasm and the ischæmia of the intra-cephalic organs. Its duration is so very short that probably it has been unnoticed by some.

For about thirty seconds the patient remains in a state of rigid immobility, the head fixed in forced rotation, the breathing suspended, the pulse small and concentric. This short period of tonic spasm is followed by clonic jerks in the face, tongue and larynx, parts supplied by the bulb. Thence the convulsions extend to the trunk and limbs. The forehead corrugates, the eyebrows approach each other, the eyes are either fixed or convulsively rotate, the pupils are insensible to light, the teeth are gnashed together, and there is foaming at the mouth, with the tongue thrust forward, and often severely bitten. The head rises and falls down again with great rapidity. Sometimes the body is in a tetanic state; at others it is violently distorted with such violent jerks in the extremities that luxations have been produced. The hands are usually closed and the thumbs clenched. As the respirations become more regular the asphyxia vanishes and the pulse increases in volume, though still irregular and tumultuous, and an abundant perspiration manifests itself which marks the end of the attack. Involuntary micturition, more rarely involuntary defecation, and even in severe cases, involuntary loss of semen may occur. This period, which is called clonic, lasts longer than the tonic. It is marked by muscular jerks, trembling, and finally a state of collapse, in which the breathing is stertorous. The patient comes to his senses, but without any knowledge of what he has just gone through, and after having uttered a few words, he complains of headache, and extreme fatigue, and falls into a long and heavy sleep. Recovery from the attack is usually rapid. If it has occurred in the evening the stupor may last throughout the night passing insensibly into a normal sleep, but if during the day the average duration is about

an hour. Before this time it is difficult to rouse the patient, but if awaked he may be peevish, irritable, and even suspicious.

In view of all this we may divide this disease into four periods, viz.: The fall, the tonic, the clonic spasm, and then the coma.

But all attacks are not so simple and regular; there are some patients who, when in the state of coma, do not recover consciousness so easily; the convulsive attacks are repeated, a deeper coma returns; and again, the attacks may be repeated for two and even three days, with the peculiarity that a delirium may take the place of the coma.

Among the complex forms, we may mention the apoplectic, which has only clonic convulsions and consequently is more violent and short lasting. After the fall comes the sopor, which may last very long and be followed by incomplete and fugitive paralysis. Sometimes epilepsy is accompanied with all the neuroses, or it is masked, simulating other affections. Common among these are convulsive tic, angina pectoris and neuralgia of the fifth pair. To this form the name of larvada has been given. But the most frequently mentioned are the grand and petit mal of the French. The latter is the eclampsia minor of some authors, in which unconsciousness occurs with scarcely any convulsions. It is an incomplete form in which, when the cerebral accidents predominate, we notice that the motor sphere is little or not at all affected. Vertigo supervenes, but the fits are light and are of limited extension, hence the name.

Epilepsy is often feigned. To detect the imposition, we may observe the eyes, which, in such cases, are usually kept closed. Under the stimulus of light we will find that the pupils will contract. Exertion makes the skin hot. The tongue is not bitten at all; and neither urine nor fœces are voided. A dry snuff blown into the nostrils with a quill will produce sneezing. We may also propose the application of a hot iron, the cutting of the hair, or the undressing of the impostor.

The use of the ophthalmoscope in epilepsy has developed peculiarly interesting results, and enables us to judge of the condition of the cerebral circulation from that of the retina. Koestl and Niemetschek have observed retinal anæmia, with pallor of the papilla and pulsation of the central veins, especially upon the left

side (on account of the incomplete filling of the internal carotid, with increase of pressure in the venous system). Tebaldi has also recognized pallor of the papilla, increase in the venous circulation, and, upon examining the eye immediately after the attack, marked congestion of the veins, with relative emptiness of the arteries—phenomena which are secondary to arterial anæmia and venous hyperæmia occurring in the cerebral vessels during an attack of epilepsy.

Course, duration and termination.—As an essentially chronic affection, it lasts for many years. As a general rule it tends to periodicity. The older the affection, the shorter the intervals between attacks.

It is considered incurable when inherited, late in development, or when of indeterminate cause. It is curable when the cause is accidental, or due to some pathological disorder of possible reparation. Any change in the character or disposition of the patient is worth our attention; this is easily noticed when the attacks are repeated and there is perturbation of the mind; then we should not be surprised if the progressive degradation of the intellect causes a persisting state of dementia. Repeated paroxysms may end in paralysis of the bulb, and in asphyxia, when death is the termination.

Death may also occur during a convulsion, from a fall, from pulmonary œdema, cerebral hæmorrhage, or rupture of the heart. Irrespective of the convulsions, death is caused by marasmus, tuberculosis, cerebral softening, and various intercurrent diseases.

Prognosis.—According to Rosenthal the elements of prognosis are: the etiological conditions of the disease, the age at which it develops, its duration, and the frequency of the attacks. Spontaneous recoveries are exceedingly rare (about four per cent. according to Beau and Maisonneuve). The idiopathic variety presents a favorable prognosis when treated early and not complicated by any hereditary influence. We must not neglect, says Rosenthal, the petit mal, and must take into consideration all the individual circumstances of the case. Symptomatic epilepsy has slight chances of recovery. The most severe form is that due to the presence of cerebral tumors. There is much more chance of recovery when the disease is secondary to cerebral syphilis or to lead-poisoning. Those forms

which are complicated with insanity, present few chances of recovery. Schrœder van der Kolk has, nevertheless, seen patients who had become insane from the influence of epilepsy recover from the mental disorder after a cure of the epilepsy has been effected. The prognosis is more favorable in reflex epilepsy; if we can succeed in removing the causes of irritation which are acting from the periphery, the epilepsy will disappear at the same time.

Diagnosis.—True epilepsy is recognized easily, but we may be led into error in certain forms characterized by incomplete paroxysms. The comatose condition after an attack may be mistaken for apoplectic coma, especially when we have not witnessed the beginning of the attack, or have overlooked the slight spasm. In order to distinguish between epilepsy and eclampsia, we should pay attention to the existence of pregnancy or the puerperal condition, to disorders of the urinary secretion, to the presence of an abundance of albumen and of casts in the urine, to the existence of dropsy and the presence of carbonate of ammonia in the blood.

Hystero-epilepsy, beginning with loss of consciousness, may be mistaken for epilepsy proper. True epilepsy is distinguished by the frequency of the nocturnal attacks, the symmetrical character of the convulsions, their short duration, the cry which is almost always heard only at the beginning of the attack, and by the absence of secondary disorders of motion and sensation. Hystero-epileptiform seizures occur more frequently during the day; they begin with spasmodic phenomena, and are accompanied by repeated cries; the attacks are divided into several periods, terminate by hiccough, weeping, and a characteristic excretion of urine, and are often followed by motor and sensory disturbances. According to Charcot, in hystero-epilepsy, energetic pressure over the ovary may modify the attack and sometimes even end it; a fact which is never observed in epilepsy.

From Vilches' diagnostic tables I take the following:

EPILEPSY.	HYSTERIA.
1. Attacks both sexes, but has preference for the female.	Very rare in the male.
2. Frequently the trouble is congenital.	Almost always appears near puberty.
3. Its influence during the menstrual period is not very marked.	Its influence is manifested during the menstrual period.

4. Coitus is contra-indicated.	Coitus is favorable.
5. No premonitory symptoms, or they are just before the attack.	Premonitory symptoms constant, although more or less remote.
6. Produced by rude commotions, or by lesions of the encephalon.	Caused by organic disturbances of the genital organs.
7. Attacks appear abruptly, with loss of consciousness; the patient falls as if struck by lightning, without time to prevent injury.	Conscious of what is going to happen and so may prevent injury.
8. No globus hystericus.	Preceded or accompanied by globus hystericus.
9. When falling there is but a single scream.	Complaining cries, usually at the end.
10. The convulsion is tonic.	Rarely has this form.
11. Stertorous coma.	Slight coma.
12. Attack of short duration, and when they recover they do not show any phenomena.	Attack is longer and ends with sobs, crying, laughing, etc.
13. Face livid, with hideous distortion of the features; eyes meaningless, pupils dilated; usually foamy saliva.	Features are hardly altered, and there is not the hideous distortion, dead eyes, dilated pupils, and very seldom foamy saliva.
14. Asphyxia.	Respiration disturbed, but no asphyxia.
15. After the attack a heavy sleep may set in; and if the trouble is prolonged the memory weakens, the intellect is altered, and they may end in dementia.	When the attack is over, although the intellect regains its power, there may be perversion or exaltation, which may end in mania, but never in dementia.
16. Epilepsy comes in attacks.	Hysteria may present itself without them.
17. Usually bites the tongue; hence there are cicatrices.	Such marks are never found as a result of hysteria.

Treatment. — Romberg says: "Proscribe consanguineous unions in every family in which epilepsy is inherited and do not allow any epileptic mother to nurse her children."

In every case we should carefully examine to see if any visceral or peripheral disorder is the cause of the trouble. We should pay attention principally to lesions of the ovaries and uterus and also to the state of the peripheral nerves. We should not forget the constitution and habits of the patient: psora, syphilis, scrofula and anæmia; venereal excesses, onanism, masturbation and the abuse of alcoholic drinks, etc.

The hygienic care of epilepsy is very important. We should

regulate the digestive functions, and we should recommend plenty of fresh air with moderate exercise, in the country, if possible; also, tepid baths and the avoidance of all classes of excesses as well as strong emotions.

Finally, the attacks themselves demand certain precepts, which constitute the treatment of the same. If we fear injury, we must order the patient to a safe place. If the paroxysms are repeated we may fear cerebral congestion, etc. Some assert that therapeutic treatment during the attack is of no avail.

The remedies which clinical experience and our pharmocodynamic studies have found to be the most beneficial in the treatment of this affection are: arsenic, agaricus musc., argent nit., aurum fol., artemisia vulg., acid phos., bella., calc. ost., cina, cicuta, causticum, cuprum, camphora, canth., chamom., coccul., china, conium, carb. ani., chininum, digitalis, drosera, ferrum, hyosc., ignat., kali carb., laches., lycop., ledum, magnesia carb., merc., nux v., nat. mur., nit. acid, opium, plumb., phosph., puls., stramon., sulph., secale, sepia, silica, stann., staphis., valerian and zinc.

Of late some other remedies have been mentioned, such as: Amyl nitrite., atropin., hydroc. acid., bufo, ipecac., melilotus, naja, polyanthes tub., tarent., laurocer., mosch., petrol., platin.; also, cicuta, crotalus, cypriped., glonoin., indigo, kali brom., œnanthe crocata, viscum album, zizia aureum.

When epilepsy is due to the repercussion of an eruption, we should study by preference: calc. ost., caustic., laches., stram., sulph., and also, arsenic, lycop., merc., nat. mur., phosph., puls., sepia and silica.

If there is any traumatic lesion, study: pulsat. and sulph. and also, arnica, rhus, staphis. or hyperic.

From masturbation: calc. ost., cina, sulph. and also, nux v., laches. and silica.

From strong moral emotions: ignat., artemis., chamom., coccul., cupr. or opium.

From the abuse of narcotic substances: bella., cupr., hyosc., ign., nux v., opium.

From abuse of alcohol: camph., asafœt., arnica, nux v.

From syphilis: jod., kali jod., merc. jod., mezer.

There are other peculiarities which we ought to keep before us in endeavoring to cure a case of epilepsy; such are, that if the attacks appear in the night during sleep, we should consult: calc. ost., laches., silica, cina, opium, stannum, cupr., lycop. or secale. —If in the evening only: stannum. —If in the morning: nux v., opium. —During the new moon: silica.

Immediately after a moral emotion: ignat., nux v., sulph.

After taking cold water when agitated: causticum.

Attacks during the menses: sulphur. —In consequence of compression by the corset: sulphur. —When the attacks are periodical: arsenic, nux v., tarent. —When the case is recent: hydroc. acid., cupr., ignat., glon., nux v., bella., asterias, opium, calc. ost.

When due to worms: cina, sabad., sulph. (Dr. Callejas, of Cuba, speaks highly of these remedies in children. Also, of cham. and acon. when recent in origin, and of secale when due to cutting of the cord.)

If the attacks are followed by general rigidity of the muscles, with immobility as if dead: merc., nit. acid, silica or sulph. —If there are burning pains in the whole body: arsenic. —If the pains are pressive: bella. —If the attacks alternate with apoplectic seizures: hyosc., bella., laches. —When the attacks end in soporous sleep: camph., chamom., hyosc., ignat. or laches.

If there is fever, heat and chills: sulph. —With clammy sweat in forehead and skin of the cranium: camph., chamom. —With general sweat: nux v., laches. —If there is much anguish and fear: lycop. —With tears: caustic., stramon. —With cries: calc. ost., cina, merc. —If there is headache before the attack: caustic. or laches. —After the attack: cina. —When there is vertigo before the attack: arsenic. —With convulsive movements of the head: cicuta, nit. ac., nux v., stann. —If the gaze is fixed: caustic. —If there is itching of the nose: merc.

If the face is pale: arsenic, laches., stannum. —When red: camph., ignat., nux v., bella., hyosc., stram. —When yellow: cicuta. —When bluish: camph., cicuta, hyosc.

If the mouth is drawn to one side: arsenic, bella., sulph. —If there is foam at the mouth: chamom., cupr., hyosc., lycop., plumb., silica. —When there is compression and contraction of the

jaws: caustic., cicuta, ignatia, platina, silica, veratrum. —If there is gritting of the teeth: caustic., hyosc., sulph., arsenic. —With disposition to bite the tongue: laches., nit. acid, plumb. —If the tongue is swollen: plumb. —If there is stuttering: lycop., silica. —If the throat is full of mucosities: laches. —When there is a peculiar external sensation of the throat: laches. —If there is a great deal of thirst: merc., nux v. —When with frequent micturition: caustic., hyosc. —When the testicles are painful: coccul., nit. acid., nux v., pulsat. —With exalted venereal appetite during the intervals: calc. ost., carb. veg., china, nux v., nat. mur., phosph., sepia, sulph. —If there is oppression of the chest: arsenic, aurum, bella., camph., sulph.

Of course all these are isolated indications from observations which may help us in the selection of the similimum after taking all the symptoms in total.

The late Dr. Callejas, of Cuba, after praising the therapeutic value of bella., caustic., laches., calc. ost. and hepar as remedies which embrace a great number of symptoms of all forms of epilepsy, reports several cures effected with the aid of causticum, of which he speaks very highly, especially when the trouble, according to all indications, appeared to be due to the repercussion of an eruption (psora). He also reports a case cured unexpectedly by chamomilla and four from fright by ignatia. In the case of a child, who always had the attack accompanied with a very pale face, angustura was the remedy. He also mentions the case of another child cured by cicuta.

And finally, the nitrite of amyl has been given by inhalation, some authors claiming that, administered on the occurrence of the aura, it will arrest the attack, and will cut it short even after it has commenced. If this is true we have surely in this drug a precious remedy.

Chapman's plan of treatment consists in the application of a rubber tube filled with ice water to the back of the patient, the limbs are rubbed while plunged in warm water, and are then placed in dry cloths. These operations are to be followed by exercise, deep inspirations, etc.

OBSERVATIONS ON ONE HUNDRED AND EIGHTEEN CONSECUTIVE CASES OF TYPHOID FEVER.

BY W. J. MARTIN, M.D., PITTSBURGH.

In the early part of March of last year an epidemic of typhoid fever broke out in that part of Pittsburgh known as the South Side, and for some time spread with alarming rapidity. After a month or six weeks the disease began to decline, but has never been entirely stamped out. Since that time my visiting list has never been free from the names of typhoid patients.

During the early part of the epidemic there were a great many deaths, but nearly all, I believe, under old-school treatment. From the time of the appearance of this epidemic until the same time the next year, it fell to my lot to treat 118 patients, of whom but two died, a death rate of less than two per cent.

In this paper I do not purpose to enter into a description of this familiar disease, but merely to give some observations upon the disease as I have met it, and the treatment my cases received; the results of which have been very satisfactory. It has been the good fortune of but few to have less than two deaths in 118 consecutive cases of typhoid fever.

Dr. William Pepper, of Philadelphia, in a paper published in the *Philadelphia Medical Times*, of Feb. 12th, 1881, reports 100 consecutive cases treated, with 97 recoveries. Ellis, in his Diseases of Children says, one-fifth of the cases of this disease in children result fatally. Ziemssen's Encyclopædia of the Practice of Medicine gives the mortality in some reports published as high as 40.7 per cent., ranging from that down to 12.2 per cent. We, as homœopaths, should feel gratified that we can give reports more favorable than any yet published by our old-school friends.

The recognition of typhoid fever is, as a rule, not a difficult matter, but where any doubt exists it is best to consider the case as typhoid until positive it is something else.

The course of the fever, in my cases, was usually as described in the text books; the temperature steadily increasing day by day for the first seven or eight days at the rate of from one-half a degree to one degree per day. For the next ten or twelve days, or

until about the twenty-first day, the fever was continuous, with about a degree or a degree and a half difference between morning and evening. For the next seven days, or until the end of the fourth week, the fever declined rapidly, the temperature after a few days being little above normal in the morning, but coming up several degrees in the evening. In many cases the temperature reached its maximum at the end of the first week, was continuous the second week, and after the fourteenth day declined and reached the normal on or about the twenty-first day. In some few cases the temperature rose gradually from the first to the seventh day, and on the eighth day there would be a marked decrease, but it would go up again gradually, and on the fifteenth day would be as high as or higher than on the seventh day, but would fall suddenly only to gradually re-rise until the end of the twenty-first day, after which it would rapidly reach the normal. Some cases started out with a sudden high temperature of 103° to 104°. In these cases the fever seemed to be at or near its maximum at the start, and if the treatment was well selected soon began to decline. In several cases there was scarcely any rise of temperature or increase of pulse, the latter at times being sub-normal, yet all the other symptoms and the general condition of the patients left no doubt but that these were cases of typhoid fever without any fever.

The highest temperature I observed was 106°, taken about four o'clock in the afternoon. The case recovered. Another patient having a temperature of 106° at nine o'clock in the evening also recovered. In many cases the temperature during the third week, taken in the morning, was 104°; what the evening temperature was I do not know by actual observation, but from the well known history of the course of the disease, we can feel quite positive it was 105° to 105.5°. I did not then, and do not now, except in very rare cases, visit typhoid patients oftener than once a day. I think it is unnecessary, and when a physician is attending thirty or forty cases, or even a much less number, it is impossible.

I say that I do not think it necessary, as a rule, to visit typhoid patients oftener than once in twenty-four hours, notwithstanding we have no less an authority than Prof. Liebermeister, in his excellent, exhaustive, interesting and instructive article on typhoid fever in Ziemssen, using these words: "Any physician who does

not make two or more observations of the temperature every day neglects his duty. To measure the temperature in the rectum, or even in the axilla, requires so little time that a physician who does not have the requisite leisure can hardly treat such a patient at all."

Prof. Liebermeister is undoubtedly a man of great ability, but as showing that it will not do to adopt everything he says, and that smart men sometimes say very foolish things, witness also the following which occurs in the same paragraph with the above: "The use of the thermometer in private practice, showing as it does to unprofessional persons the importance of the rise and fall of temperature and the effect of treatment on the fever, has more than anything else narrowed the field of homœopaths and charlatans." If this were true in the time and place where written, it is not true in this time and in this country. I have met two physicians who do not use the thermometer, and both are allopaths.

In a few of the cases the bowels were constipated throughout the entire illness. These were the cases in which there was the least concern felt as to the result. In five cases there were intestinal hæmorrhages; all recovered. About an equal number had bloody stools, and two had uterine hæmorrhages; these also recovered.

Delirium, when violent and continuous, made the prognosis very grave, yet I felt that if the diarrhœa could be kept under control and the temperature kept within safe limits, the case would come through all right, and I was not disappointed. I think we must regard persistent and excessive diarrhœa as the most dangerous symptom in a case of typhoid fever, whilst the opposite condition of the bowels is a most favorable symptom. Jahr says he had not lost a single case in whom the bowels remained costive up to the time of the crisis. Hering said he did not regard with concern the non-appearance of a stool even in the third week, and that the same applies in child-bed.

I wish to remark here, that in all the cases of typhoid fever I have treated, I have not observed, in one single instance, what I understand to be a crisis. On the contrary, the fever rose gradually, remained for a time at its height and gradually declined. I like the teaching of Raue on this point, who lays down the following as his conclusions: "The right remedy cures a disease without

a crisis; and thus we have an indisputable proof that the selected remedy was *the* remedy. When, after the administration of a homœopathic remedy, a crisis takes place notwithstanding, we may be sure we did not hit the case, and that the patient got well without our aid. When no crisis occurs and the patient gets worse and worse, it is clear that we did not find the right remedy, and we may even have spoiled the case by wrong means."

In the treatment of these 118 cases thirteen remedies were used which I shall name in the order of their importance, the first named being used in the greatest number of cases, the last named in the fewest cases: bryonia^{3}, rhus tox.^{3}, phos. acid^{12}, baptisia^{3}, hyoscyamus^{30}, arsenicum^{3}, phosphorus^{6}, nitric acid^{3}, china^{3}, stramonium^{30}, hamamelis θ, secale θ and carbo. veg.^{6}. The last four remedies, stramonium, hamamelis, secale and carbo. veg., were used in but one case each.

Bryonia was always indicated in the beginning if the bowels were constipated, and the bowels would almost invariably be constipated unless purgatives had been employed and a diarrhœa produced, which I think we may look upon as a most unfortunate state of affairs in the beginning of a case of typhoid fever. If the bowels had been costive and the patient had produced a diarrhœa by drugs, and all the other symptoms still called for bryonia, that remedy was given. If no purgatives had been employed and diarrhœa was present at the outset, baptisia was given in almost every case.

Nearly all cases were constipated for the first week, and fortunate are we if they continue so in the second and third weeks, but it is not often they do so. As soon as diarrhœa would set in rhus was given, and in a large majority of cases controlled the diarrhœa, kept down the temperature and quieted the delirium. Where it failed to quiet the delirium, hyoscyamus was substituted, provided the condition of the bowels did not call for something else. In some cases the hyoscyamus was interpolated, being given each third dose. This was very satisfactory. Where rhus failed to control the diarrhœa, and the stools were yellow, watery, windy and painless, phos. acid never failed. Many cases were treated almost or quite entirely with phos. acid. The patients did not complain, tongue not very dry, and the diarrhœa light colored

and painless, preceded by borborygmus and accompanied by considerable noisy flatus.

If after rhus the diarrhœa continued unmodified, was dark in color and very offensive, arsenicum was resorted to.

Baptisia, much lauded by some, was not used much, for the reason that usually some of the other remedies were indicated. Where nothing else seemed indicated baptisia was given, by exclusion as it were, and was generally continued throughout the case; it seemed to have a modifying influence, but I could never see that it was capable of producing such striking results as rhus or arsenicum. Rhus, I think, leads the list of typhoid fever remedies after the bryonia period has passed.

For the frequent urging to urinate, with burning and scanty discharge, which occurred in a number of cases, arsenic was always given and almost always brought speedy relief. If there was retention—a condition which should be looked for daily—the catheter was the best remedy, used twice a day; though in one case I withdrew the urine but once a day and she got along as well as the others; yet I think this was not often enough, but mention it to show that it is not a fatal error to allow the bladder to remain unemptied for twenty-four hours.

Phosphorus was given in those cases complicated by pneumonia and with the most gratifying results. Nitric acid in intestinal hæmorrhage, and was sufficient except in one case. This case I was called to see after it had advanced into the second stage. He was put on arsenic, which was continued for four days, when several slight hæmorrhages from the bowels occurring he was put on nitric acid, and the following morning I was shown a large vessel holding several quarts, filled with blood passed during the night; the patient was blanched and covered with cold sweat, the pulse weak and slow, and the temperature which had been 104° was down to 101°. Hamamelis θ ten drops in a tumbler half full of water, two teaspoonfuls every hour, was given. In the evening the report was, that the bowels had not been moved since my morning visit. The prescription was continued unchanged and the bowels did not move that night nor the next day, but during the next night fully a half-gallon of dark, partly clotted blood was again passed, and at my morning visit the patient appeared almost

exsanguinated. Hamamelis θ as before was continued in alternation with china[3], a dose every hour. The next time the bowels moved, which was a week or more after this, the stool was natural. He made a good and, considering his condition, a rapid recovery.

Secale was given to one case—a woman who took fever soon after delivery. Her case was a remarkable one; diarrhœa was present from the outset, soon pneumonia set in and with it delirium, and then hæmorrhage from the bowels. Under the persistent use of phosphorus the bowels, lungs and mind were improving when hæmorrhage from the womb occurred. Secale[3] was given and the flooding ceased, but about every four or five hours she would have a slight pain in the uterus and discharge from the vagina a pear-shaped clot of blood, showing that the uterus was not firmly contracted. This state of affairs continuing unmodified for several days, I dissolved twenty drops of the fluid extract of ergot in a half glass of water, giving two teaspoonfuls every hour. This was continued for more than a week; the clots discharged becoming gradually smaller and less frequent, and finally, ceased. The secale θ was continued for several days after the discharge of blood had ceased, alternated with china, after which she took china alone for a long time. This woman's evening temperature for four weeks or more was from 104° to 105°, and for fully two months her pulse was never below 120. Her convalescence was very tardy, but she is living and well to-day.

Carbo. veg. was given in one case for gangrene of one side of the face and neck, which occurred in a little girl during convalescence. Arsenic and secale were also used. She died. The walls of the jugular vein were destroyed resulting in fatal hæmorrhage. I have not found a similar case recorded in medical literature. This was one of the two fatal cases; the other fatal case was a young man. He was doing well, not a single untoward symptom being present, when suddenly he was seized with intense pain in the abdomen shooting down to the end of the penis; along with the pain there was vomiting of enormous quantities of a bitter watery fluid the color of green bottle glass; his pulse and temperature fell below normal; he was bathed in cold perspiration, his face pinched, a picture of collapse. Everything introduced into the stomach was ejected. Warm fomentations were applied

to the abdomen and the pain gradually ceased, but it would be renewed on the least motion as would also the vomiting, but the latter continued to occur even though he did not move. This state of affairs continued for forty-eight hours when he died. He passed into another physician's hands a few hours before he died, else I might be able to report the post-mortem. A case presenting many symptoms similar was reported by Dr. J. H. McClelland to the Allegheny County Anatomical Society, last winter, in which Dr. Harris, of New Castle, Pa., made a post-mortem and found the duodenum gangrenous.

What the diet of typhoid fever patients should be is a question upon which medical men differ considerably. It is almost useless to try to lay down any rules on this subject as there is such great difference in the likes and dislikes of patients. And yet it is a matter of the greatest importance. That no solid food should be allowed is agreed to by all; liquid food being alone safe. Milk leads the list, and if the patient likes it and it agrees, we will hardly need anything else. But fully half the cases I have met will not drink milk and some vomit after drinking it. The same is true of beef tea, more patients dislike than like it, some get sick and vomit after taking it, others, again, suffer diarrhœa after it. Each patient as regards his feeding must be treated according to his individual peculiarities; if he will take milk freely and it does not disagree, all the better. Some of my cases took regularly two quarts of fresh sweet milk per day. If they will take beef tea and we can discover no ill-effects follow, let them have it cautiously. I think it has a tendency to keep up the temperature, as also do liquors, and whatever does this should be cautiously used. The reduction of strength and rapid emaciation is not so much due to the patients not eating, as to the elevated temperature. Anything that will keep down temperature will preserve strength; anything that will cause elevation of temperature will increase prostration and diminish the chances of recovery. My patients were treated very largely on the starvation plan, water being allowed *ad lib.* and milk, also, where it was relished and assimilated. No forced feeding was practiced. Beef tea was used in all cases that would take it, but not early in the disease. Whiskey in milk was used in some few cases and pure whiskey

when the heart showed signs of weakening, or if there were signs of the nervous system giving out. Wine was used with marked benefit. It was given only after the fever had begun to decline and during convalescence. The point to watch all through the fever and for a considerable time afterwards is, that the patient does not eat too much. I think I give the experience of every physician when I say I have seen serious and even fatal results follow the giving of too much or improper food, but I have yet to see the case that has suffered to any serious extent from not getting nourishment sufficient.

Sponging the entire body with cool or tepid water every morning and evening, changing the patient's clothing and the bed-clothes frequently, ventilating and airing well the sick-room, and forbidding visitors from calling or talking with the patient were matters as carefully watched and strictly enforced as possible.

UNFINISHED BUSINESS.

The report of the committee appointed at the last meeting to present a revision of the Constitution and By-Laws was then presented.

After some alterations had been made, the report of the Committee was accepted, and the Constitution and By-Laws were adopted.

NEW BUSINESS.

The resignations of the following gentlemen having been offered were, on motion, accepted: J. W. Brickley, M.D., L. G. Van Scoyoc, M.D., W. F. Speth, M.D., J. S. Skeels, M.D.

The following bills having been presented were ordered to be paid: the bill for printing Transactions of 1880; the Corresponding Secretary's bill; the bills for hall rent, page, and telegram to Long Branch.

Dr. Dudley offered the following resolution, which was adopted:

Resolved, That the thanks of this Society are due and are hereby tendered to the West Chester *Republican,* the *Daily Local News,* the *Village Record,* and to the Philadelphia *Ledger* and *Press* for publishing careful reports of our proceedings.

The Society then proceeded to the election of officers for the year 1882, with the following result:

President, ...	J. C. Morgan, M.D.
First Vice President, . .	P. Dudley, M.D.
Second Vice President, . .	J. B. Wood, M.D.
Recording Secretary, . .	Z. T. Miller, M.D.
Corresponding Secretary, . .	R. E. Caruthers, M.D.
Treasurer, ...	J. F. Cooper, M.D.
Necrologist, ...	W. R. Childs, M.D.
Censors, ...	R. J. McClatchey, M.D. Jos. E. Jones, M.D. Maria N. Johnson, M.D.

The following appointments were then announced:

Committee of Arrangements.—The Officers of the Society.

Committee on Subscription.—J. F. Cooper, M.D.

Committee on Legislation.—Drs. L. H. Willard, J. K. Lee, J. B. Wood, H. Pitcairn, to which the Society added J. H. McClelland.

Committee of Publication.—Z. T. Miller, M.D., *Chairman*, Drs. R. E. Caruthers, J. F. Cooper, T. M. Strong.

Historical Committee.—J. C. Guernsey, M.D., *Chairman*, Drs. H. Detwiller, A. R. Thomas, C. Mohr, J. E. Jones, J. H. Marsden, M. M. Walker, F. R. Schmucker, J. K. Lee, of Johnstown, R. J. McClatchey, and *ex officio* the Secretaries of the Society.

Delegates to the American Institute of Homœopathy. —J. C. Burgher, M.D., *Chairman*, Drs. H. Detwiller, S. F. Shannon, D. M. Graham, C. Van Artsdalen.

Bureau of Sanitary Science.—Pemberton Dudley, M.D., *Chairman*, Drs. J. F. Cooper, Clarence Bartlett, J. R. Mansfield, C. C. Rinehart.

Bureau of Surgery.—J. J. Detwiller, M.D., *Chairman*, Drs. W. R. Childs, L. H. Willard, C. M. Thomas, S. C. Scott, J. E. James, M. J. Buck.

Bureau of Materia Medica.—H. N. Martin, M.D., *Chairman*, Drs. M. S. Williamson, E. A. Farrington, C. Mohr, Z. T. Miller, T. S. Dunning, H. Pitcairn.

Bureau of Ophthalmology and Otology.—J. E. Jones, M.D., *Chairman*, Drs. W. H. Winslow, W. H. Bigler, B. W. James, J. W. Detwiller.

Bureau of Gynæcology.—B. F. Betts, M.D., *Chairman*, Drs. J. C. Morgan, A. M. Hawley, J. C. Burgher, M. J. Chapman, W. D. Hall.

Bureau of Obstetrics.—M. M. Walker, M.D., *Chairman*, Drs. J. H. Marsden, R. J. McClatchey, J. H. Way, C. P. Seip, A. H. Ashton, C. T. Canfield, H. N. Guernsey.

Bureau of Clinical Medicine.—C. F. Bingaman, M.D., *Chairman*, Drs. A. Korndœrfer, C. E. Toothaker, A. Lippe, W. J. Martin, M. Preston, S. T. Charlton, S. A. Mullin.

Bureau of Pædology.—J. K. Lee, M.D., *Chairman*, Drs. C. W. Perkins, H. A. Kimball, W. F. Edmundson, H. Hofmann, J. W. Allen, W. J. Guernsey.

Bureau of Pathology and Pathological Anatomy.—W. C. Goodno, M.D., *Chairman,* Drs. W. B. Van Lennep, A. R. Thomas, J. B. McClelland, H. M. Bunting.

Bureau of Organization, Registration and Statistics.—R. E. Caruthers, M.D., *Chairman,* Drs. J. R. Swartz, J. B. Wood, J. L. Ferson, T. M. Strong, D. M. Graham.

Dr. Morgan expressed himself thankful to the Society for the unexpected nomination and the exceedingly kind and unanimous vote, all of which was duly appreciated by him.

A vote of thanks was tendered the managing editor of the *Hahnemannian Monthly,* the retiring President, the Secretaries and the Treasurer.

The Society then adjourned to meet at Altoona, in the first week of September, 1882, to continue in session until the business of the Society shall be disposed of.

CONSTITUTION AND BY-LAWS.

CONSTITUTION.

ARTICLE I.—Name and Object.

This Association shall be known as the Homœopathic Medical Society of the State of Pennsylvania.

Its object is the advancement of medical science.

ARTICLE II.—Members.

This Society shall be composed of active, honorary and corresponding members, who shall be chosen in conformity with the By-Laws.

ARTICLE III.—Officers.

The officers of this Society shall be a President, two Vice Presidents, a Recording Secretary, a Corresponding Secretary, a Treasurer, a Necrologist, and a Board of Censors consisting of three members, who shall be chosen at such time, in such manner, and for such a period, and shall perform such duties as the By-Laws may direct.

ARTICLE IV.—Amendment.

This Constitution may be altered or amended by a vote of two-thirds of the members present at the annual meeting; provided, that notice of such intended alteration or amendment shall have been given to the Society, in writing, at the annual meeting next preceding.

BY-LAWS.

ARTICLE I.—Meetings.

Section 1. The annual meeting of this Society shall be held at 10 A. M., at the time and place decided upon at the annual session next preceding.

Seven members shall constitute a quorum for the transaction of business.

Sec. 2. The elected officers of the Society shall have power to direct such other meetings to be held as they may judge advisable.

ARTICLE II.—Officers.

The officers shall be elected by ballot at each annual meeting of the Society, and shall enter upon their respective duties on the first day of January next succeeding their election.

ARTICLE III.—Duties of Officers.

Section 1. The President shall preside at the meetings of the Society, preserve order therein, put questions, announce decisions, and appoint committees not otherwise ordered. He shall deliver an address, at the opening of the session.

Sec. 2. The Vice Presidents, in the order of their election, shall perform the duties of the President, in his absence.

Sec. 3. The Recording Secretary shall keep a record of all the proceedings and resolutions, and of all discussions that may occur in the Society; authenticate by his signature all papers and acts of the Society, when the occasion requires it, and bring before the Society any business, needing its action, not otherwise presented.

Sec. 4. The Corresponding Secretary shall receive and preserve all letters addressed directly to the Society; open and maintain such correspondence as shall tend to advance its interests; give at least two weeks' notice, to the members, of all meetings of the Society; keep a record of all members, with the date of admission of each; present all communications to the Society; notify all committees of their appointment and of the business referred to them, and notify all members of their election. He shall be *ex officio* chairman of the Bureau of Organization, Registration and Statistics.

SEC. 5. The Treasurer shall notify, annually, all members of their arrearages, collect all money belonging to the Society, and make all disbursements ordered by the Society. He shall furnish, at each annual meeting, a written report of his receipts and expenditures and a statement of the condition of the finances.

SEC. 6. The Necrologist shall, upon the death of a member of the Society, prepare a suitable obituary and present it to the Society; he shall also forward a copy, properly engrossed, to the family of the deceased member, if so ordered by the Society.

The report of the Necrologist shall be presented in connection with the reports and papers of the Bureau of Organization, Registration and Statistics.

SEC. 7. The Censors shall receive and examine the credentials of candidates for membership, and shall report to the Society, for election, such as may be found to be properly qualified.

Their report can be made in its regular order or at the close of the report of any bureau.

ARTICLE IV.—MEMBERSHIP.

SECTION 1. Active.—A candidate for active membership shall present to the Board of Censors a written application, signed by himself, accompanied by a certificate, from two members of the Society in good standing, that the applicant has received the degree of Doctor of Medicine, from an incorporated medical college; that he subscribes to the doctrine of *Similia Similibus Curantur*, and that he sustains a good moral character. If found qualified, he may be elected a member. He shall not, however, be considered a member until he has paid an initiation fee of five dollars (which includes the first year's dues), and signed the Constitution, either in person or by proxy.

Any active member removing from the State, wishing to retain his membership, shall notify the Society to that effect; otherwise his name shall be dropped from the roll.

Any active member who fails either to attend the annual meetings or to send a paper, once in five years, or to pay his dues, shall, upon vote of the Society, be dropped from membership.

SEC. 2. Honorary.—Any homœopathic physician, not a resident of Pennsylvania, who, from his superior attainments, may be

judged worthy, may be elected an honorary member at any annual meeting, but not more than two shall be elected in one year.

Such honorary members shall have all the privileges of members except the right to vote and to hold office.

SEC. 3. Corresponding.—Any homœopathic physician, residing outside of the United States, may be elected a corresponding member, at any annnal meeting, but not more than two shall be elected in one year.

Such corresponding members shall have all the privileges of members except the right to vote and hold office.

ARTICLE V.—DUES.

Active members shall pay, annually, in advance, the sum of three dollars toward defraying the expenses of the Society.

The published proceedings of the Society will be furnished only to those members who are not in arrears.

ARTICLE VI.—BUREAUS AND COMMITTEES.

SECTION 1. The following Bureaus shall be appointed as hereinafter provided:

One of Materia Medica and Provings.

One of Homœopathic Institutes and Clinical Medicine.

One of Surgery.

One of Obstetrics.

One of Gynæcology.

One of Pathology and Pathological Anatomy.

One of Ophthalmology and Otology.

One of Pædology.

One of Sanitary Science.

One of Organization, Registration and Statistics.

SEC. 2. Each bureau shall be composed of not less than five members.

SEC. 3. Each bureau shall present, in its annual report, a resumé of the discoveries and progress in its special department, together with the papers presented for discussion. The bureaus shall report in order of rotation, each succeeding year.

SEC. 4. The bureau of Organization, Registration and Statistics, shall receive all credentials of delegates to the Society; re-

ceive and preserve all reports from local or State societies, colleges and other institutions; keep a record of the number of members admitted and withdrawn from the Society; solicit an exchange of publications with other State societies; and perform such other duties as may be directed by the Society. From these data, the annual report of the bureau shall be prepared.

SEC. 5. Immediately upon the close of the report of a bureau, the President shall appoint a chairman for the ensuing year; and the chairman so appointed shall, in conjunction with the President, select his associates, and the list of members of the bureau shall be announced before the close of the session.

SEC. 6. If any member of a bureau shall resign, or decline to serve, the chairman of the bureau shall fill the vacancy by appointment, and notify the Corresponding Secretary of the fact.

SEC. 7. The following Standing Committees shall be appointed, as hereinafter provided for:

A Legislative Committee.

A Publishing Committee.

SEC. 8. Each of these committees shall consist of at least three members, to be appointed by the President.

SEC. 9. The Legislative Committee shall give special attention to all legislation involving the interests of the Society.

SEC. 10. The Publishing Committee shall publish and issue the Transactions, to all who are entitled to receive them, within three months from the date of the meeting, unless otherwise directed by the Society at its annual meeting.

The Recording and Corresponding Secretaries and the Treasurer shall constitute this committee, but the number of members may be increased at the discretion of the Society.

ARTICLE VII.—PAPERS AND DISCUSSIONS.

SECTION 1. Each paper presented to the Society shall be through its appropriate bureau. All papers to be presented by any bureau shall be in the hands of the chairman thereof, at least two months prior to the meeting of the Society; and the chairman of a bureau shall have plenary power, and it shall be his duty to prepare an abstract of the various papers, and these only, shall be presented to the meeting for its consideration and discussion; nevertheless, all papers shall be published in the Transactions in full as written,

subject to the approval and revision of the committee of Publication. No report or paper will be received, by the Society, in an incomplete or unfinished condition, and no paper shall be published as part of the transactions, which has been previously published.

SEC. 2. All communications read before the Society shall become its property; but no paper shall be published as part of the transactions of the Society without its sanction.

SEC. 3. All discussions shall be strictly confined to the subject of the paper or report, and each speaker shall be limited to a speech of ten minutes and to one of five minutes, if he speaks a second time, and no excess of time shall be allowed except by consent of the Society. The reader of the paper shall be allowed ten minutes at the close of the discussion.

SEC. 4. Each county or local society shall be invited to prepare and discuss, during the year, a paper upon some medical subject, and present it to the Society at its annual meeting, through its appropriate bureau.

ARTICLE VIII.—AMENDMENTS.

These By-Laws may be altered or amended by a vote of two-thirds of the members present at any annual meeting.

ORDER OF BUSINESS.

1. Calling meeting to order.
2. Address by the President.
3. Roll-call and correction of list of members.
4. Appointment of Committee on President's Address.
5. Report of Treasurer.
6. Appointment of Auditing Committee.
7. Report of Corresponding Secretary.
8. Reports of Committees.
9. Report of Censors and Election of Members.
10. Reports of Bureaus.
11. Unfinished Business.
12. New Business.
13. Election of Officers.
14. Announcement of Bureaus and Committees.
15. Adjournment.

LIST OF MEMBERS.

1870. Allen, J. W., M.D., Altoona.
1876. Ashton, A. H., M.D., 730 S. 10th St., Philadelphia.
1881. Bartlett, Clarence, M.D., 623 N. 16th St., Philadelphia.
1876. Bechtel, J. W., Jr., M.D., Harrisburg.
1875. Betts, B. F., M.D., 1700 Girard Av., Philadelphia.
1872. Bigler, W. H., M.D., 1302 N. 6th St., Philadelphia.
1873. Bingaman, C. F., M.D., 294 Penn Av., Pittsburgh.
1872. Boardman, W. H., M.D., Butler St., Pittsburgh.
1878. Boley, A., M.D.
1872. Bowie, A. P., M.D., Uniontown.
1880. Boyd, J. S., M.D., New Sheffield.
1875. Bradford, L. J., M.D., Sylvania.
1872. Brickley, Obadiah C., M.D., York.
1881. Brooks, Chas. M., M.D., 1613 N. 10th St., Philadelphia.
1879. Buck, M. J., M.D., Altoona.
1877. Bullard, J. A., M.D., Wilkesbarre.
1881. Bunting, H. M., M.D., Norristown.
1866. Burgher, J. C., M.D., 332 Penn Av., Pittsburgh.
1875. Canfield, Corresta T., M.D., Indianapolis, Ind.
1868. Carmany, C. J., M.D., Harrisburg.
1873. Caruthers, R. E., M.D., 107 Arch St., Allegheny City.
1873. Chantler, I. B., M.D., Sewickley.
1875. Chapman, Millie J., M.D., 288 Penn Av., Pittsburgh.
1868. Charlton, S. T., M.D., Harrisburg.
1866. Childs, W. R., M.D., 306 Penn Av., Pittsburgh.
1868. Christ, William F., M.D., Parryville.
1873. Cook, I. Elmer, M.D., Harrisburg.
1866. Cooper, J. F., M.D., 42 N. Diamond St., Allegheny City.
1866. Cowley, David, M.D., Station A, Pittsburgh.
1875. Crawford, J. S., M.D., Greensburg.

1866. Detwiller, Henry, M.D., Easton.
1866. Detwiller, John J., M.D., Easton.
1879. Detwiller, J. W., M.D., Bethlehem.
1878. Dinsmore, S. W. S., M.D., Sharpsburg.
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1875. Woods, Stephen, M.D., McDonald Station.
1880. Yoder, D., M.D., Catasauqua.
1874. Young, J. H., M.D., 1910 Pine St., Philadelphia.
1880. Zerns, W. M., M.D., 1207 Wallace St., Philadelphia.

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1873. Pope, Alfred C., M.D., London, England.

NECROLOGICAL LIST.

1866. Barnaby, John E., M.D., died January 5th, 1869.
1867. Barrett, Charles B., M.D.
1866. Blakely, W. James, M.D., died January 14th, 1877.
1870. Bratt, Benj. R., M.D., died January 31st, 1872.
1866. Brooks, Silas S., M.D., died July 2d, 1871.
1866. Cooke, Wm. H., M.D., died March 21st, 1879.
1866. Cote, M., M.D., died May 29th, 1878.
1871. Dreibelbis, David L., M.D.
1866. Friese, Michael, M.D., died Febuary 4th, 1880.
1866. Frost, J. H. P., M.D., died January 21st, 1875.
1866. Gardiner, Richard, M.D., died March 22d, 1877.
1870. Guernsey, Wm. F., M.D., died February 16th, 1877.
1866. Herron, James A., M.D., died November 15th, 1868.
1873. Houard, J. G., M.D., died April 24th, 1878.
1866. James, David, M.D., died June 6th, 1873.
1866. Jeanes, Jacob, M.D., died December 18th, 1877.
1871. Lovejoy, E., M.D., (honorary,) died August 15th, 1872.
1869. Ostrander, W. M., M.D., died August ——, 1881.
1868. Payne, Wm. E., M.D., (honorary,) died March 9th, 1877.
1878. Pereira, Ignacio, M.D., (corresponding,) died ———, 1881.
1866. Preston, Coates, M.D., died August 9th, 1881.
1870. Reinhold, H. E., M.D., died March 6th, 1879.
1866. Roberts, R. Ross, M.D.
1872. Scott, James L., M.D., died August 15th, 1876.
1872. Speth, W. F., M.D., died May 11th, 1881.
——. Stauffer, D. R., M.D., died March 16th, 1874.
1867. Stevens, C. A., M.D., died January 17th, 1881.
1870, Taudte, F., M.D., died March 27th, 1878.
1866. Williamson, Walter, M.D., died December 19th, 1870.
1866. Williamson, Walter M., M.D., died May 5th, 1874.

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